

HENRY HILL GOODELL

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J. V. Goodell

HENRY HILL GOODELL

THE STORY OF HIS LIFE

WITH LETTERS AND A FEW OF HIS
ADDRESSES

BY

CALVIN STEBBINS

CAMBRIDGE

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No. 1

TO
JOHN GOODELL AND WILLIAM GOODELL

SONS OF PRESIDENT GOODELL

AND TO
WILLIAM SEYMOUR TYLER
CORNELIUS BOARDMAN TYLER
CHARLES DICKINSON

AND
EDWARD RITTENHOUSE HOUGHTON

SONS OF HIS LIFE-LONG FRIENDS

THIS STORY OF A STRENUOUS LIFE
IS AFFECTIONATELY
DEDICATED

INTRODUCTION

IN preparing this sketch of the life of President Goodell it has been the author's aim to make it as far as possible autobiographical. The letters written during the Civil War are a soldier's letters, written by camp-fires, amid the confusion of army life, and sometimes with the booming of great guns ringing in his ears. They are printed as he left them, without correction, omitting personal and family matters of no interest to the public. The letters are sometimes arranged so as to appear like a diary, but he did not keep a diary. He wrote to his friends of what was going on around him; he has very little to say of matters that did not come under his personal observation.

President Goodell was very careless about his manuscripts and seems to have looked upon them as of temporary value; and except the addresses and papers which found their way into print, only a few out of many have been preserved. Those printed in this volume are selected as illustrative of the tone of his mind and his method of handling the subjects he studied. It will be pleasing to those to whom they were addressed to read his farewells to the graduating classes.

It will be impossible to mention all the friends who have contributed to this story. It is sufficient to say that Mrs. Helen E. Goodell has been untiring in collecting material illustrative of the work and character of her husband. The sons of the late Colonel Mason W. Tyler of Plainfield,

N. J., have kindly loaned letters addressed to their father; many thanks are due to M. F. Dickinson, Esq., of Boston, for letters, papers, and valuable suggestions. Major Thomas McManus of the 25th Regiment of Connecticut Volunteers and the Honorable William R. Sessions, for many years Secretary of the Massachusetts Board of Agriculture, have contributed important facts, one in regard to the soldier, the other in regard to the affairs of the College. Professor William P. Brooks and Professor George F. Mills, for many years associated with President Goodell in the Faculty of the College, have been very kind in furnishing information of great value on important subjects; and many of the graduates of the College have contributed interesting incidents and characterizations.

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MEMOIR

Bright wits and instinct sure,
And goodness warm, and truth without alloy,
And temper sweet, and love of all things pure,
And joy in the light, and power to spread the joy.

HENRY HILL GOODELL

I

YOUTH

THE family name of Goodell appears in the Colonial Records and in the Record of the soldiers who enlisted from Massachusetts during the Revolution, in some twenty different forms, Goodale and Goodell taking the lead. The stock from which Henry Hill Goodell sprang was of the genuine Puritan type, robust, healthy, brave, earnest, and religious. The first settler of the name in New England was Robert Goodale, who with his wife Katharin and three children, "Mary four years old, Abraham two, and Isaac one half," embarked at Ipswich, England, in the ship Elizabeth on April 10, 1634, and came to Salem, where he soon established himself among those who were called "the genteel." Before leaving England both he and his wife took a solemn oath to be loyal subjects of his Majesty, King Charles I. But while his descendants did not remain loyal to the English throne, they apparently clung to their Puritanism. Of the eighty or more Goodales or Goodells who served as soldiers in the Revolution, all but seven were named after the lawgivers, the warriors, the singers and prophets of Israel, or the evangelists, disciples and writers of the New Testament.

His grandfather, William Goodell, a soldier in the Revolution, one of the seven of his "kith and kin" in the army, who did not have a name borrowed from the Scriptures, was born in Marlborough, Massachusetts, July 9, 1757, spent most of his active life in Templeton, Massachusetts, and died July 4, 1843, at Copley, Ohio. He had a family of ten children, of whom William, the father of Henry Hill, was the second child and first son. This William seems to have inherited all the pluck and grit of his race. He was a man of great practical wisdom and of courage that never failed. His father was not able to help him in his ambition to acquire an education, but he contrived to fit for college, to graduate at Dartmouth in 1817, to study theology at Andover, and then devoted his life to the work of a missionary, and for forty years worked in the Ottoman Empire. Turkey was then a frontier position, and his trials came not "in single spears, but in fierce battalions." The enumeration of his trials and perils by the first great missionary of the Christian faith to his disciples at Corinth is almost equaled by those endured by William Goodell. He suffered from fire and flood, from plague and pestilence, from the bigotry of the Greek Church, and lived in hourly expectation of an outburst of Moslem fanaticism; yet he stood to his post and did his work bravely and well.

He saw the humorous side of life and enjoyed it. His humor was spontaneous and came out as oddly as a Puritan quoted Scripture. "His sense of humor," says Dr. Jessup, "was refreshing, bubbling over all on occasions and sparkling even in the darkest hour of persecution and tribulation."¹ Dr. Hamlin, as quoted by Dr. Jessup, says

¹ *Fifty-three Years in Syria*, i, 47.

of him: "His wit and mirthfulness made perpetual sunshine."

The first account we have of Henry Hill is in a letter of his father to a friend announcing his birth. The quaint humor, mingled with a fervent yet anxious piety, is charming, and will throw a side-light on the character of the man.

"On the 20th inst. a new missionary joined us. He came without a partner, and without any outfit; and, as is usual with all newcomers, he boards for the present in my family, till he shall become acquainted with the language and customs of the country; so that, what with his entire ignorance, and what with his entire dependence on us for even his ordinary clothing, we are full of business these days. In other words, a week ago yesterday morning, a third son and seventh child was added to my family; and we pray that they all may be like the seven lamps, which burn forever before the throne of God. I had looked forward to this event with more than ordinary anxiety, but the Lord was better to us than our fears, and instead of diminishing our numbers hath added thereto; and if Job could say, 'Blessed be the name of the Lord,' how much more should we! 'He hath not dealt with us after our sins, nor rewarded us according to our iniquities.'

"The children have looked through the whole Old and New Testament, with all history, ancient and modern, for a name, but without success. This, however, is not our greatest trouble. Our principal concern is, that he may have that new name which no man knoweth, save he that receiveth it; and that his name, whatever it may be, may be written in Heaven. May the day of his death be better than the day of his birth!"

He was born at fifteen minutes past twelve on the morning of May 20, 1839; and was christened, three days later, Henry Hill.

The family ultimately consisted of nine children: four sisters and two brothers older than himself and a brother and a sister younger. When three years old, he lost a brother eight years older, and he survived all the family but a sister next older and a sister next younger, than himself. The ties of blood were very strong in him, and his position in the family, with older and younger brothers and sisters, was a fortunate one for the development of the peculiar relations that really constitute the family, which, as Emerson says, "makes a man love no music so well as his kitchen clock."

During his early teens the Crimean War broke out, and Constantinople became the centre of interest to the whole western world. The soldiers of three great nations, England, France and Sardinia, in their various uniforms, together with the great warships and innumerable transports hurrying to the scene of conflict, left an impression on his mind that years did not efface. He saw most of the great commanders, both of the land and sea forces, and beyond this many of the diplomats representing many nations and distinguished visitors from the West. It is related that one day he heard that Lord Stratford de Redcliffe was going to call on his father, and running home he rushed into the room without noticing that any one was there and burst out: "Papa, Lord Stratford de Redcliffe is coming to call on you." — "My son," said the father, "Lord Stratford de Redcliffe is already here," introducing him to the distinguished caller. The great ambassador, whom Tennyson

describes on his monument in Westminster Abbey as "the voice of England in the East," put his hand on the little fellow's head and gave him the patriarchial blessing.

His letters to his brother William, who had come to this country to study for his profession and who had begun the practice of medicine, were full of war news and the doings of soldiers. Dec. 19, 1853, he writes from Constantinople, giving an account of the beginning of the war: —

MY DEAR BROTHER WILLIAM, — May your shadow never be less and may you soon have plenty of patients, — not that I wish folks might get sick, but that you might have practice.

A week or two ago the Turks and the Russians had a naval engagement in which the Turks were utterly defeated. The circumstances were these: 13 of the Turkish fleet, mostly small vessels, went up into the Black Sea for a cruise; they came to Sinopi and anchored there for a few days, and not apprehending any danger they took no precautions in case of a surprise. Well a Russian steamer saw them and went off and brought down upon them eight of the largest-sized Russian vessels. The vessels came in with a strong wind in their favour and immediately opened upon the Turks with red-hot shot. The Turks tried to get out of the way so as to let the battery from the town play on the enemy, but did not succeed, and every one of them except a steamer was either blown up or sunk. This steamer managed to get up her steam and slipt out in the midst of the action; she was pursued by R. steamers, but she used her stern guns upon them and when they came too near she would turn and give them a broadside, and thus she escaped, but in a somewhat shattered condition.

An English merchantman, which was lying up there at the time of the engagement, was sunk and two of her crew killed. Immediately upon hearing the news here, an English and a French steamer of war were despatched up with surgeons and bandages and medicine for the soldiers who survived. As soon as the battle was over, the Russians hoisted sail and went off. The Greeks (the little rascals) at Sinopi were so delighted at the issue of the battle that they hoisted the Russian flag; this so exasperated the Turks that they went and burned down all their quarters.

May 27, 1854, he writes: "Last week Friday we went to the 'Sweet Waters' of Europe; almost all the great folks were there. Of the latter there were, the American, English, French, Dutch, Persian, and Austrian ambassadors; there was also the Duke of Cambridge, Lord Raglan, Prince Napoleon, and plenty of English officers."

June 10: "I have been to the review — it took place last week. The Sultan was there to see them, the Highlanders were there, they were really beautiful, and when they marched before the Sultan they played on their bagpipes; the music was very fine and the cavalry eclipsed everything; even one of the generals said so. The music was splendid, they played 'God save the King and Queen,' the 'Sultan's March,' 'Scots wha hae,' and several others."

Henry did not attend school in Constantinople, but studied at home. In English, mathematics and literature, his sisters were his teachers. He studied Latin with his father, Greek with his father's Greek translator of the New Testament, and history was read every night and questions were asked about it at the breakfast table the next morn-

ing. French he picked up in the street, as it was the language commonly spoken.

But his parents were too wise to continue this method long. The growing boy must have more air and a larger world. Accordingly, at the age of seventeen, "a tender age," as he used to say, he left Constantinople, July 30, 1856, in company with an older sister, in the *Race Horse*, a sailing vessel, and after a voyage of sixty-seven days arrived in New York, October 5.

He went immediately to Williston Seminary, Easthampton, and for the first year studied with both the Junior and the Middle Classes and graduated with the class of 1858, doing the work of three years in two. In the Seminary he was very quiet, did nothing to attract attention, seemed to have few friends, or even acquaintances, and was almost unknown to those who became at once on entering college his companions, and lifelong friends after college days had become a matter of the past. He was looked upon as a hard-working student. Perhaps in the minds of some of his fellow-students there was a certain mystery about him, born as he was in a strange land, under a strange civilization, and so far from friends and home. And then the newness of the new world may have had a repressing influence upon him.

He entered Amherst College in the fall of 1858, and was graduated with the class of 1862. In college the real man came to the front, with a large percentage of the boy. He found friends everywhere, — in his own class, in the higher classes and among the Faculty. He was always good-natured, always cheerful, at times rollicking, and ready to take a hand in any good fun or practical joke. He was still

a worker, maintained a good standard of scholarship, read a good deal and to the purpose, and when the time came, took up one study that was to be a great service to him in after life, the study of botany. During the Freshman year he accepted an invitation to become a member of the Psi Upsilon Fraternity. The spirit of Fraternity seems to have been in accord with his nature, as he took a personal interest, not only in his associate members but in the new members, long after he left college.

During the last years of his college life the great storm that had long been gathering burst suddenly upon the country. By a cannon shot in the harbor of Charleston, South Carolina, the great issue between free and slave labor, involving the preservation of the Union, was brought into the court of last resort. In this great contest, which grew greater as it went on, until it assumed proportions perhaps up to that time unsurpassed in the history of mankind, Goodell took a deep interest. It seemed to him to involve the highest interests of civilization and all that he held dear. He said but little, but evidently thought a great deal as to his duty. The following letter addressed to his brother-in-law, Mr. James Bird of Hartford, Connecticut, will give his own account of his feelings. It was written more than five months after the Massachusetts troops went through Baltimore, and two months after the first battle of Bull Run, which General Sherman declared "one of the best-planned battles of the war, but one of the worst fought." He had had plenty of time to think.

AMHERST, *Sept. 30, 1861.*

MY DEAR JAMES, — I want to ask your advice on a subject I have been thinking on very strongly the past weeks, viz: the advisability of my going to the war. The question has come home so strongly to me that I feel as if I must decide it one way or another immediately. It's no use attempting to study while in such a state of indecision. Believe me, this is no sudden question that has come up in my mind. It has scarcely been out of my thoughts since returning here this term. Within the past few weeks we have bade God speed to a dozen or more college-mates, who have gone to assume honorable positions in our regiments now forming, and I suppose during the present week some six or seven more will leave. It's the very life-blood of the College we are sending; some of our best and noblest men. The other morning a letter was read to the College from Governor Andrew, strongly advising us not to enlist as privates, but if we could get commissions, to go, stating that the great want of our armies is officers of intelligence to take the lead and direct. Now, James, the question that arises is this. Here I have been drilling, and have drilled men, for the past three months, and ought I to stay here, when perhaps I can be of service to my country? I am not thoroughly posted, and don't pretend to be, but I feel confident that I know more than one-half the officers that are being accepted. Why, in Colonel Lee's regiment now encamped at Springfield, except the Colonel, Lieutenant-Colonel and Major, there is not a single officer besides our College boys that knows anything about modern tactics, and it is our fellows that are drilling the men. As Governor Andrew says, there are not officers enough found

for the troops. I have had a lieutenant's position offered me, but declined it, as I could not give any immediate answer. It is hard to tell what is one's duty to do. The faculty are very much adverse to the students' leaving, but then on the other hand, the minister here, and other persons in whose judgment I place the strongest confidence, urge their going. A company left Amherst the other day, and when I saw husbands leaving their wives and children, it fairly stirred every particle of blood in my veins, and made me feel as ashamed as could be to be staying at home, when there was no one in the world dependent upon me. Don't think that I am fired with ambition or glory or anything of the sort. An officer's position is a dangerous one, and I cling too tenaciously to life and its pleasures to rashly throw mine away. No such motive I assure you influences me. I have not yet written to Mr. Robert, but shall await replies from you and William [his brother], to whom I write by this same mail, before sending to him. If you and he think favorably of this, I shall hold myself in readiness for whatever may turn up.

Please write me as soon as convenient. Perhaps you had better not say anything about this to Eliza [his sister] and the rest of the family just at present, as it will only worry them.

Your aff. brother,

HENRY.

From this letter it appears that he had made up his mind as to his duty. His friends, however, thought he had better complete his college course; and he reluctantly yielded to their wishes, and gave increased attention to gymnastics and military drill, which he afterwards said was of great

advantage to him. At the time of his graduation the cause of the Union was under a dark cloud. During the last of June, 1862, even the President of the United States did not know for days where the Army of the Potomac was. The gloom was deep but the people were not discouraged. At the request of the governors of eighteen loyal states President Lincoln, on July 2, called out three hundred thousand men for three years, and on August 4 ordered a draft for three hundred thousand men for nine months.

II

SOLDIER

ON leaving College Goodell opened, on July 23, 1862, a recruiting office in the City of New York; but his expectations did not materialize. He informed a friend that most of the men who called at his office came to see how he was getting along, or to sell him something that would be indispensable to him in campaigning. Only once did he feel sure of a recruit, but the feeling lasted only a moment. With all the patriotic enthusiasm and power of persuasion he possessed, he worked one fellow up to consent to enlist; "but when the papers were brought out he declined to sign that day, and when he left he threw down a card on which was written: 'If you want a good wife, 1st. Keep a good conscience; 2nd. Pay your honest debts; 3rd. Purchase your shirts at 263 Broadway'; remarking as he evacuated, 'That is my business'; and was followed by 'You stupid blockhead! you infamous wretch!' or words to that effect."

Abandoning the scheme of raising a company in New York, he went to Hartford and enlisted August 16 in the 25th Regiment of Connecticut Volunteers, then forming under Colonel George P. Bissell, for a service of nine months, and was appointed second lieutenant in Company F. It was the smallest company in the regiment and was christened by the other soldiers "Napheys's Brigade," in honor

of the captain, George H. Napheys. The regiment was mustered into the service of the United States November 11, and three days later sailed from Hartford to Centreville on Long Island, the rendezvous of an expedition to be commanded by Major-General N. P. Banks, destination unknown.

There is no place that reveals the real character of a man so quickly and so clearly as a shelter tent in an army in the field. All there is in him, be it noble or base, strong or weak, is brought to the front by the peculiar experiences of the soldier. This test Goodell could stand, and it has been said by one who had a good opportunity to know, that "he was, from first to last, a favorite with every officer and private in the regiment." This means that he was the same in the field that he was before he left the state, and that he made himself respected as a disciplinarian because he was one. No private under his command could make the complaint of Birdofredum Sawin:—

I don't approve of tellin' tales, but just to you I may state
Our ossifers ain't wut they wuz afore they left the Bay-State.

The experiences of life in a camp of instruction are tedious and wearisome, but when a regiment starts for the field under a government not prepared for war and unused to handling and providing for large bodies of men, the real trials of the soldier begin. Even under these circumstances, however, his cheerfulness did not desert him. When the regiment arrived at the camp at Centreville after a march of about ten miles, they found that no provision had been made for them, and it was the last of November. The next morning he writes that he "slept in the guard-house on the

bare floor, with nothing under him but his blankets, and in the small hours of the morning he ran a mile on the race-course to get warm."

The regiment was ordered to embark on November 29. In a letter written on the Atlantic Dock, Brooklyn, dated December 4, he gives an account of what had happened.

Our regiment was to have left last Saturday, when lo, just as we were drawn up in battle-line preparatory to a start, General Banks's orderly gallops up and brings an order for Co's. C, D, F, and G to remain behind and go with the 26th [Connecticut]. Here was a pretty go, for tents, baggage and everything had already gone! We instantly sent down to the depot for them, but they had already gone. To add to our troubles, up came one of the heaviest rain-storms, such as Long Island only can produce. As there was no other place, we all went into the guard-house, and there have we been lying ever since on the hard boards; not even a wisp of straw did we have till Tuesday, for it was so wet we could not bring it. The 26th boys were very kind and accommodated a whole company. We officers were not so well off as the privates, for we did not have our blankets with us. Yesterday I was sent down here with a guard to take care of our baggage, which is lying piled upon the dock. It was bitter cold last night, but we managed to keep comfortable in some empty R.R. cars that were convenient. The regiment received marching orders last night and I expect them down every minute to embark on the Empire City with the 26th Ct. The rest of the regiment, or rather five companies, sailed in the Mary Boardman, day before yesterday morning,

and so crowded that part of the men are compelled to stay on the upper deck.

Good-bye, all hands, with ever so much love to all.

HENRY.

P. S. I've found out where our expedition is going. It's going to sea. One thing is certain — we are going pretty far South.

There was considerable confusion and much delay in getting off. Some of the transports were so crowded that the captains refused to sail. Part of the remaining companies of the 25th were taken on board the *Che Kiang*. Goodell, with one hundred and twenty men of his regiment, sailed from New York December 18, in the *Merrimac*, with fifteen hundred troops on board. The passage down the Atlantic coast was very rough, the machinery of the ship was disabled, and they were obliged to put into Hilton Head for repairs. From here he writes December 27 to a classmate a very realistic account of his experience.

“You would have laughed the first day, could you have seen the guards of the vessel from stem to stern lined with anxious sea-gazers, their knees knocking together, their countenances ashen, and a very intimate connection evidently existing between the stomach and the mouth. Even my risibles were excited, though myself not entirely insensible to the attractions of Neptune. Thou hast heard, friend of my soul, of that unhappy man mentioned in the Holy Writ, who had seven women hanging to the skirts of his coat; but his condition was not a circumstance to be compared to that of the unfortunate Quartermaster and

Commissary of this ship, your humble servant *in propria persona*. Each day I growl and say, 'Oh, men, why will you eat so much?' Over three thousand pounds of rations do I have to issue from that hold each day. It is no small job, with the vessel pitching everything hilter skilter, to get provisions up; and I assure you it is very disturbing to the equanimity of my temperature and requireth great nerve and presence of stomach to go below into the bowels of the ship and hear some hundred or two puking above you. Occasionally, I grieve to relate, I get disembowelled in the operation. Hilton Head is the most God-forsaken, miserable old hole yours respectfully ever got into. The sand is ankle-deep everywhere, and such a lot of negroes, — shiftless, lazy dogs, black as the ace of spades and twice as natural. But the little nigs kill me outright. Excepting a young elephant I know of nothing so comical. I can sit half the morning looking at them and hearing them jabber. We expect to sail to-night or to-morrow morning; but I must close as I have a chance to send this ashore."

The Merrimac did not reach New Orleans until some days after the arrival of the other transports. Part of his regiment went immediately up the river to Baton Rouge, and part of it was left at New Orleans. On the arrival of the Merrimac, Goodell was employed in superintending the unlading of the ship, and had a very definite impression that the "Native Brethren" did not like the "New Massa"; for his ideas of a day's work were very different from those to which they had been accustomed. He had time, however, to visit many places in the city. He was attracted to the slave-market, and noticed the signs of the various dealers in human chattels. He made an excursion

to Fort Jackson, — rowed, or rode, over the country for fifteen miles. He had an exquisitely fine sympathy with vegetable life in all its forms and especially with trees, and the country charmed him. “I wish you could see the orange and lemon groves,” he writes, “with the trees perfectly bowed down with their weight of fruit. Such oranges! Citrons almost as large as my head and lemons as would make the heart of a thrifty house-wife rejoice. Upon my word, I am in love with the sunny South. Don’t be astonished if, finding my affinity, you should hear that Gibraltar had surrendered and I had settled down for life.”

But he was not likely to find an assailant of his fortress among the then inhabitants of New Orleans. He writes: “The ladies wore ‘secesh’ cockades in their bonnets. Oh, but it was amusing to see the curl of the lip and the displeased nose with which they would sweep by us. Of course I used my privilege of staring them full in the face.” He was master of a peculiar facial expression of a serio-comic character, which he may have used, but he never had any success with what he called, “my bran-new, two-for-a-quarter smile.”

The object of the expedition was to coöperate with General Grant in the reduction of Vicksburg. But General Banks did not know until he arrived at New Orleans that Port Hudson was fortified and manned by almost as large a force as he could bring against it, or that fifty miles or so west of New Orleans was a force of five or six thousand men ready to move on the city and cut his lines of communication the moment he moved up the river. In addition to this, he was furnished with transportation for only one division of his army, and a letter from General Grant was

forty days *en route*. There was only one thing that could be done, and that was to destroy the Confederate army west of the Mississippi, before he could with safety leave New Orleans in his rear and advance on Port Hudson. So, concentrating his army at Donaldsonville, he marched across the country to Berwick Bay and followed up the Bayou Teche to Alexandria on the Red River; then, following down the Red River to the Mississippi, he advanced upon Port Hudson from the North. The story of this long march with its various vicissitudes will be given in Goodell's letters to one of his sisters, with an occasional note to classmates, to illustrate the spirit with which he endured the trials of an exceedingly tedious and fatiguing campaign.

On the 15th of January, 1863, the companies of the 25th Connecticut at New Orleans were sent up the river to Baton Rouge, and joining their old companions, were brigaded with the 13th Connecticut, the 26th Maine and the 159th New York, under Colonel H. W. Birge as brigade commander. These regiments formed the Third Brigade of the Fourth Division of the 19th Army Corps, General Grover division commander.

They were now in the presence of the enemy, and the position assigned to the 25th was on the extreme left in advance, and Goodell gets his first taste of active service. On January 26, he writes from Baton Rouge: —

“Our camp is about half a mile from the town, just on the edge of a dense forest and cypress swamp. Last night I went out for the first time on picket duty, with forty-five men. Had fifteen posts to look after, extending over some mile and a half through the centre of the forest. It was no joke, I assure you, going the rounds all night visiting the posts,

for it was dark as a pocket, and I lost my way quite a number of times and would wander hither and thither, stumbling over vines and branches, till some sentinel would bring me up with a round turn, with a click of his musket-lock and 'Who goes there?'"

In closing the letter he could not help adding: "Tell Mrs. B. that her nephew has improved so wonderfully in camp morals that he actually told me he thought if he could get a good chance to hook a hen, he should do it."

In a letter to a classmate written January 27, he made a few additions to the story of his first night on picket.

The woods are plentifully stocked with game and we could hear most every sound, from the hooting of owls and rooting of wild hogs to the snarl of the wild-cat and cry of the possum. You should see the vines that encircle the trees or festoon from tree to tree. Some of them are gigantic, as large round as my body, and their folds look like the coils of an immense snake. The smaller vines are so pliable you can twist and tie them like a rope. I slept an hour or two under a magnolia tree while my sergeant kept watch. You can't think how tough I am getting. I lie down on the ground with nothing but my overcoat on, and using a log for a pillow sleep very comfortably. Adieu, my pirate of the deep blue sea.

Affectionately,

YOUR BLOOMING DAFFODIL AND FRAGRANT
PRIMROSE OF A SOUTHERN CLIME.

For some weeks after the arrival of the regiment at Baton Rouge, the officers and men were busy with picket

and guard-duty and acquiring the use of fire-arms, which they did not receive until after they arrived at New Orleans. Goodell soon adjusted himself to the situation. He writes February 7: —

“Everything is peaceful and quiet round here just now, but it’s frightfully cold. It is very singular weather here. Just about so often we have a terrific rain-storm; when it clears off, it will be intensely cold for three or four days, then it will get unpleasantly hot and we have another storm to subdue it. I don’t think that these changes agree with the men, for we have a large number on the sick-list. The officers’ ranks are so reduced by resignation and sickness that, out of twenty lieutenants, we have only eight for duty; the consequence is we have to work like Trojans, for every day we detail two lieutenants, one for picket and the other for guard. You would laugh to see me start out on picket. First I have my overcoat on, and my sword and fixings over that; then in my sling I carry my nine-pound woolen blanket and my rubber blanket; then I have my haversack with a day’s rations, and lastly my canteen. Oh, but you ought to see some of my dishes that I get up. I should n’t know how to name them, but they are luscious. The other day I managed to get hold of some codfish, and being in an experimenting frame of mind, made a delicious fry. Soaked the critter over night, and next morning threw the pieces into the frying-pan along with some pork; to this I added a little concentrated milk instead of butter. Then toasted some bread and poured the whole over it. Why, it was a dish fit for a king! We are lucky in being able to procure bread now. At first we could get nothing but hard-tack. Fresh meat I have not tasted since we landed, till the

other day, when out on picket, one of the men caught a young pig and forthwith flayed and roasted him. That same day, when on picket, a contraband brought us some fresh eggs and some sweet potatoes; but such instances are few and far between. Why, I became a nine-days' wonder on returning to camp and relating my experience."

Hard as he worked, he seems to have enjoyed himself and got all the fun there was in the life he was living, and to have made some besides. On February 21 he writes to a classmate of a dream that carried him back to college days, and all the old boys were there and each had his own peculiar characteristics and the fun grew louder and louder, until he awoke to find his captain sitting up and wondering what had got into his usually staid and sober lieutenant.

"With my elevation to my present elevated and highly honorable position I have acquired a dignity of mien and aldermanic rotundity of person highly gratifying to the beholder. But I will tell you what I do miss, and that is books. It would be a perfect luxury to get hold of something readable occasionally. Here we have nothing but army tactics and regulations, a faithful study of which is daily enjoined, which are very good in their way, but not very improving to the mind. I'm flourishing like the owl of the desert and the pelican of the wilderness. My nocturnal excursions in Amherst dodging the professors have developed in me a strategical skill which will no doubt cause my military genius soon to be recognized. But methinks I hear you growl, 'What a cussed Goodell it is!' so I will just dry up."

BATON ROUGE, *Feb., 22, 1863.*

BELOVED IN ISRAEL, — Again (thou art owing me an epistle) have I taken up my pen, this time to request thee to forward the enclosed to Calvin Stebbins. I hate, Dick, to have to send my letters franked as soldier's letters, but nary a stamp have I and nary a one can I buy on these benighted shores.

I have just been drilling my men in a sad duty in reversed arms and rest, a duty which we are having to perform quite often nowadays. It is sad to see men stricken down in their strength by the fever; one by one they drop off, many of them without ever having had a sight of the enemy — poor fellows! It is a sickening sight to go over the hospitals and see the parched and wasted sufferers, many of them stretched on the floor with only a blanket and scarce a comfort or luxury of any kind.

Mortar and gun-boats are daily arriving at this port. We have six of the former and four or five of the latter. They are continually making reconnoissance up the river and occasionally give Port Hudson a touch of their balls, but most of them give her a wide berth. Oh, Dick, you ought to see us on our brigade drills! Such brilliant bayonet charges as we perform! Your uncle whooping and yelling and waving his sword, men howling like so many Indians and tearing over the ground as if the old scratch were after them. It is exciting in the extreme, and it is just about as much as I can do to hold in from dashing ahead and cutting up my didoes. I verily believe that on a real charge, whatever else my feelings, I shall hold my own with the swiftest of them. Can't help it! It is so exciting! My blood gets regularly up in the seventh Heaven and I chafe

like a mettlesome steed. Inbred sin will stick out and I am no exception. . . .

By the way, Dick, I should be very much obliged to you if you would occasionally send me a weekly Springfield "Republican." Reading matter we have none, and when New York papers arrive they command 25 and 30 cents, so that we poor devils, who have not yet received a cent of pay, are forced to go without. You don't know what it is to be cut off from all communication with the outer world for a week or ten days at a time, and during that interval hear nothing but the discouraging rumors and reports industriously circulated by the rebels. However, we are fast getting over our first refreshing verdure and are learning to disbelieve everything we hear.

I am in a confoundedly cross state of mind to-day for ye following good and sufficient causes: 1st. I have just come off guard in a soaking rain, and though being neither sugar nor salt, have yet nearly melted away. 2nd. Having a prisoner consigned to my tender mercies to be fed on ye bread of affliction and ye waters of repentance until further orders, ye same prisoner did at ye dead hour of noon break in ye guard-house and abscond to his quarters, did there fare sumptuously on hard-tack and salt-horse; that this same coming to ye ears of ye colonel, he did up and sour on ye officer of ye guard, and sending him a pair of handcuffs did order forthwith to arrest ye delinquent and confine him in close quarters; that in ye performance of ye said duty a spirited encounter did there and thereupon take place, in which ye offender did get upset in one corner and ye officer very nearly in the other; that ye criminal, being finally secured, did create such a row, ye same was forced

to be gagged and bound hand and foot. 3d. That ye weather hath proved unpropitious for several days, raining heavily when ye humble servant did hope to go round and view ye beauties of ye delicate upturned nose of Baton Rouge. 4th. That ye three commissioned officers of Co. G not knowing better than to all fall sick at once and go to ye hospital, ye subscriber was immediately detailed to take charge and command of ye Co. to be obeyed and respected accordingly; an honor by no means congenial since being alone it bringeth many cares. That ye paymaster, that much-desired individual, hath again disappointed ye expectants and left us, like Patience on ye monument, to regret ye continued absence of ye "root of all evil." 6th. That ye reasons and ye causes multiply so fast we would fain subscribe ourselves in bonds of Auld Lang Syne.

With lots of love to thyself, thy family and Sister Ebenezer,

Daddy,

H. H. GOODELL.

We had a division review ordered to-day but it has been countermanded. I wrote you and Furnald on the receipt of your letters, somewhere about the 12th of this month.

But this camp-life was not to last. Admiral Farragut wished to run his fleet past the batteries of Port Hudson, that he might intercept the Red River traffic and coöperate with General Grant at Vicksburg; and he asked General Banks to make a demonstration behind the fortress. The movement was intended as a diversion. General Banks at once put his army in motion, and the 25th Connecticut, with a squadron of horse and a battery of regular artillerymen, commenced the advance on March 10. Five miles

up the road from Baton Rouge they had a sharp skirmish with the enemy and found a bridge to build. Goodell was not one of those men who do not know what fear is, but he had moral strength to do his duty without regard to danger. "I was under fire," he writes, "for ten or fifteen minutes, the bullets zipping in the trees over my head. I flatter myself that my hair rose to a reasonable height on that occasion."

The army came within cannon-shot of the Confederate works, but could not get their guns up in time to be of any service. But they were auditors and witnesses of a terrible scene. At 11.20 P.M., two rockets burst into the air, and in an instant all the guns of the fortress lit up the darkness with their flash. The fleet replied, and until 35 minutes after midnight the roar of one hundred and fifty guns was incessant. To add terror to the anxiety of the awful scene in the mind of the soldiers, "the U. S. Frigate Mississippi" grounded, and to save her from capture, she was fired in all parts, and when wrapped in flames that lit up the scene for miles around, went up with a terrific explosion in fragments to the sky. Goodell's account of this daring and brilliant affair has been lost. Farragut's little fleet for this desperate enterprise consisted of four ships and three gunboats, which were lashed to the port side of the forward ships. But only the Hartford, which flew the Admiral's "dauntless blue," and her consort, the little Albatross, succeeded in running past the batteries. The other ships were disabled by the enemy's fire and dropped down the stream. The Mississippi, which had no consort, grounded, became a target for the enemy's guns, and to save the lives of her men was abandoned and fired.

On the return march Goodell had a hard time. A heavy rain-storm flooded the country, and he writes from Baton Rouge on March 22: —

“Once more back at our old camping-ground, black as Cherokee Indians, ragged as any old-clothesman, somewhat fatigued but still jolly, we resume the thread of our narrative and send you our salutations. On March 16, seven miles from Baton Rouge, on our retreat, we were encamped in a mud-puddle of pudding consistency. We managed to get some rails and dry off in the sun, though I was so well soaked it took me nearly all day to get thoroughly dried. Towards noon, Billy Wilson’s Zou-Zous hove in sight, his white nanny goat marching at the head of his brigade as complacently as you please. This goat he brought with him from New York, and it has accompanied him in all his marches, always stalking along in advance of the column. At 3 P.M., we fell into line and marched one and one half miles to the banks of the Mississippi, where we encamped on a cotton plantation. It was about as pleasant a place as I have been in in Louisiana, on a high bluff overlooking the Mississippi, which spread out before us like some broad lake. The banks were lined with live-oak, and back of us were dense forests and impenetrable swamps. Hardly had we arrived when I was detailed officer of the brigade guard. Pretty rough on a fellow who had n’t slept any for forty-eight hours; but we were most of us in the same predicament. Then there were three of us lieutenants, so we had two hours on and four off, but the 13th lieutenant was sick and I stood for him, and the Maine lieutenant unaccountably disappeared, so I had a weary watch of it till 3 in the morning, when our cavalry was driven back upon us but

no one hurt. At three I was relieved, and lying down on the bare ground, I slept like a rock till eight, when the new guard came. Here let me say that that rain of Sunday, which so tired us, was probably the saving of many of our lives; for the rebs, when they found that we were retreating, turned out infantry, cavalry and artillery and pressed hard upon our heels, but the rain providentially deterred them. The 13th and 25th covered the retreat. March 17 found us still in Camp Allen, for so we had named our camp. In the afternoon I took six men and started on a foraging expedition. We laid a couple of cows over pretty quick. Leaving four men to dress them, I started for a sugar plantation a mile or so distant. I found it entirely deserted, but lots of sugar and molasses. As this had not been confiscated to the United States government, we laid in and managed to get a small cask of the sweetening elixir up to the camp. On our return I found I was detailed to take command of Co. G., whose officers still remained sick. (Since we started I had been acting 1st lieutenant in Co. A.) We held dress-parade at sunset in marching costume. I was very ragged, having burned the legs of my pants nearly off, and my blouse was well torn while skirmishing through the woods.

“March 18, spent most of the day in mending the breaches in my breeches. Visited the 52nd Mass. and saw lots of Amherst boys, smoked the calumet of peace, and had a good time generally. After dress-parade took out Co. G. on a fatigue-party after wood. I am sure the rebs have some need to bring railing accusations against us, for I am certain there is not a rail to be found within twelve miles of Baton Rouge.

“March 19, there was ordered an inspection of arms in the morning. While waiting for the colonel to come round to my company, the adjutant came along and said that the colonel, relying on my discretion and judgment, had ordered me to take picked men from the regiment and go out foraging after corn, and that if I got into any muss he would be ready to lend a helping hand. In a few minutes we were under way. Went out two miles and accomplished our mission satisfactorily.

“March 20, received marching orders. At 3 o'clock got under way, and after a weary, hot march we reached our camp-ground at Baton Rouge at 7 o'clock. As we marched past Banks's head-quarters, he came out and saluted, while the bands of the different regiments played and we marched past at shouldered arms. We lay in the open air again all night, for it was too late and the men were too tired to pitch our tents that night.”

“March 21, was busy all day getting up our tents and fixing ourselves generally, and that will complete the thread of my tale up to to-day. Excuse all moral reflections on the object of this expedition and what it has accomplished, for I am writing at lightning speed, having just received marching orders again, and all is packing and confusion around me. Where we are going to, nobody knows, so I can't enlighten you.”

DONALDSONVILLE, Sunday, *March 29, 1863.*

At last, after being over a week packing up, waiting for orders, we are on the move. We left Baton Rouge last night at 6.30, and reached this place at 9 (as our luck would have it) in a rain-storm. Lay under the trees all night, and this

morning are endeavoring to enjoy ourselves drying off. I am writing on a drumhead to let you know where we are and where we are going. I suppose our present destination is Brashier City, Berwick Bay, but beyond that nothing is known. Rumor says Texas and Red River. We have taken tents and all our baggage and do not expect again to see Baton Rouge or Port Hudson. There is a steamer coming up the Mississippi, so I must hurry to get this off. Did n't I enjoy last night's meal on the boat! It was worth paying fifty cents for a meal to see a white table-cloth and sit down in a Christian manner. We drank coffee to such an unlimited extent that positively we could see each other visibly swell like the woman at the tea-drinking described in the "Pickwick Papers." Donaldsonville is an exceedingly pretty, very old-fashioned shingle-roofed town. There is a bayou runs through its centre some three hundred yards wide, that runs clear to the gulf, and so deep that a frigate lies in it about a mile from where it sets in from the Mississippi. The catalpa and China-ball trees are in full blossom and the pecans are leafing out. There is a Catholic church that looks like a barn outside, but is quite tasty inside, and thither the inhabitants, who are mostly French and Spanish, are flocking. We have enjoyed the unwonted luxury of seeing ladies, white ladies, perambulating the streets in clean white petticoats. Don't laugh, but actually those white petticoats are the most homelike thing I have seen for months. Billy Wilson's Zouaves are in our division, but the whole regiment is under arrest and their arms taken away. They got drunk coming down on the boat, and mutineered. Since we returned to Baton Rouge from our expedition to Port Hudson, we have done nothing except

lie round in a most uncomfortable state, with everything packed up, expecting to start every day. You can't think how beautiful everything is now. Cherokee roses, jessamines, jonquils, and a great variety of flowers, are in blossom. We live out under the trees, with the rain pattering down upon us, and you shiver by your fires. We are greatly pestered with wood-ticks and it is almost impossible to pick them off. They stick so closely to the skin and burrow in. I am quite comfortable; campaigning evidently agrees with me. I have gained ten pounds since I left New York. The only thing I could wish for would be a havelock, — it's so fearfully hot; but it would be a good two months before I should get it, so I will try and make one for myself.

From Bayou Bœuf, seven miles from Brashier City, writing on April 3, he continues his story: —

“We have had some terribly hot and fatiguing marches, and the boys are many of them so foot-sore and blistered I doubt whether they could march much further. I have held out wonderfully. Have not so much as raised a sign of a blister, though carrying a rubber blanket and a thick overcoat in a sling on my shoulders, my canteen full of water, a haversack with two days' rations — provisions — in it, and my sword and revolvers; by no means a small load as you can imagine and as I found after the first few miles. My nose and cheeks underwent one skinning operation in our Port Hudson expedition and it grieves me to relate that they are again peeling. I am writing on a wooden mallet which I have improvised into a writing-table for the occasion. But I will return to Donaldsonville and write up the march. — March 30, we crossed over the Bayou La

Fourche to the main part of the town and spent a couple of hours in exploring it. It must have been an exceedingly beautiful place, though now many of the houses are lying in ruins from the bombardment last summer.¹ Then there is an exceedingly pretty cemetery, embowered in red and white roses which hang in clusters over the monuments. I noticed on many of the tombs fresh wreaths of roses and myrtle, and before many there were pictures hanging, representing the survivors weeping beneath a willow. Blue pinks seem to be a very favorite flower and were planted around almost every monument.

“March 31. We were packed up and on the move at 8.30 A.M. Our road (in fact the whole way to Thibodeaux) lay along the Bayou La Fourche, a very deep and cold stream along which our steamers were passing bearing the sick and baggage. As we wound along under the China-ball and catalpa trees, the inhabitants were all on the piazzas watching us, and that appeared to be their principal occupation everywhere. Such a slovenly, indolent set you never saw, — the women especially, with frizzled hair, unhooked dresses, and slipshod shoes. They were evidently poor white trash. But oh, the clover fields we passed! The heart of an Alderney cow would have leaped into her mouth at the sight, and a butcher’s mouth would have watered in

¹ During the summer of 1862 the people of Donaldsonville pursued the uniform practice of firing upon our steamers passing up and down the river. Admiral Farragut reports August 10: “I sent a message to the inhabitants that if they did not discontinue the practice I would destroy their town. The next night they fired on the *St. Charles*. I therefore ordered them to send their women and children out of town as I certainly intended to destroy the town on my way down the river, and I fulfilled my promise to a certain extent.” 19 W. R. 141.

anticipation, and it was just so all the way to Thibodeaux. Such a luxurious growth I never saw. After marching twelve miles we encamped at Cottonville [Paincourtville] pretty well fagged out. There were plenty of chickens, pigs and sheep running round loose, of which fact we were not slow to avail ourselves. The last vision I had as I closed my eyes was that of a porker squealing at the top of its lungs and charging blindly among the camp-fires, over the couches of the slumbering soldiers, pursued by a rabble of shouting youths discharging sticks, bayonets and other deadly missiles.

“April 1. We were off at 7 A.M., still among clover fields and fig trees. On our march we passed some beautiful plantations, one of them especially so. It was perfectly embowered in trees, had a smooth-cut lawn, on which were a couple of deer feeding. There was a fountain playing and some swans swimming in a pond before the house. On the veranda a couple of ladies were working and some pretty little children were playing round. By George! it was the prettiest sight I have seen in Louisiana. It fairly stilled the clamor of the men, seeing these little children, and I heard more than one tough fellow ejaculate, ‘God bless them!’ At another little white cottage we passed, a lady whose husband had fallen in the Union ranks sent her slaves down the road with pails of cool water for us. It was a simple act, but we could not help blessing her for it, as we resumed our dusty way. Oh, the heat and the dust! Not a breath of air stirring. We marched fourteen miles [twelve miles to Labadieville] and encamped on a sugar plantation, where we just had sugar and molasses to our hearts’ content. The nights were extremely cold,

and in the morning I would wake up and find my overcoat as wet as if it had been dipped in water. I have slept bare-headed in the open air every night, and yet strange to say have never caught the least particle of cold. But if ever I start again I'll carry a woolen nightcap; a man needs something of the kind.

"April 2. Our brigade being in the advance, we were off at 5.30 A.M. in a flood of moonlight that silvered the dew-drops in the meadows far and near. There is something very pretty in the camping-out of an army. The camp-fires far and wide, the hum and bustle, and last, the cry of that ridiculous creature, the mule. We reached Thibodeaux at noon, passed directly through the town, and encamped three miles beyond. It was the hardest day's march of all [fourteen miles]. The men staggered and reeled about the road from fatigue and blistered feet. We all took hold and helped carry guns and knapsacks, but such a relief it was when we passed from the hard road into a clover field and lay down! At 6 P.M. came the order to fall in, and we marched back to the R.R. station [Terre Bonne Station on the New Orleans and Opelousas R.R.] and took cars to Brashier City. It was very cold, and we were perched on top of the cars, while the 13th rode inside. Such a forsaken piece of country as we passed through, marshes and swamps on both sides of us! Reached Bayou Bœuf at 11, and were ordered to encamp. Was detailed to unload the cars, and worked till 2 in the morning unloading and stowing away; consequently, as I was up at 5 A.M., I do not feel very smart. We shall probably rest here for a few days." [They remained here until the 9th.]

From Brashier City, under date of April 10, he writes

to a classmate who had sent him Victor Hugo's account of the battle of Waterloo: —

I received your letter last night after a hot, dusty, weary march of twelve miles from Bayou Boeuf, and was so tickled at seeing the well-known hand of my Calvinistic friend that forthwith I sit down to reply to it. Thank you a thousand times, old fellow, for your kind offers. The battle of Waterloo came safely to hand. It is a most magnificent thing — the finest description of the battle I ever read. Tired as I was, I was so fascinated I sat up half the night till I had finished it. You would have thought it was a pursuit of knowledge under difficulties, could you have seen me last night rolled up in my blanket in the dewy grass, reading by my lantern that swung from the friendly branch of a tree hard by. I am beginning to count the days when I shall see dear old New England hills once more. This confounded country we are marching in is nothing but a vast plain of swamp and forest, infested by mosquitoes that present bills prodigious, in fact twice as long as any a Philadelphia lawyer would have the conscience to present. Such vermin! my gracious! I'll bet you, if these were Homeric days, the old cock never would have died trying to solve the fishermen's enigma. By the way, speaking of Homer, I confiscated the other day in a secesh house a pocket edition of Pope's "Iliad" and revived my classic love, reading of

the twice twenty heroes fell
Sent by great Ajax to the shades of hell.

I am writing under great difficulties in the open air, on a log, and everybody jabbering around me like so many

bees. I'm so fearfully demoralized, don't know as I shall succeed in getting this done so as to be intelligible. Since I last wrote we have been marching here and there and everywhere. Went within sight of the rebel fortifications. Lost one man the first night out. Our regiment led the advance the first three days. Our two divisions, Grover's and Emory's, are now after the rebs at Paterson and expect to have a fight there.

But I must close, for we shall soon be marching and I must get my duds together. Allow me in conclusion to quote the celestial bard of "Scots wha hae," —

I am a son of Mars who have been in many wars
And show my cuts and scars where'er I come.
This fight was for a wench and that other in a trench
When welcoming the rebs to the sound of the drum.

Affectionately,

DADDY GOODELL.

Among his college friends he was known by the sobriquet of "Daddy." When, where or why he got it, is not known, but he at once appropriated it and used it to the day of his death as his rightful designation, and made a good deal of fun out of the use of it.

On Board the St. Mary's, GRAND LAKE,
3 miles from INDIAN BEND, *April 13.*

While they are landing troops from the other transports, I will try and write a few lines to return by this boat. At Bayou Bœuf we were encamped several days. There are some old tombstones at that place. On one is the following curious inscription, —

Afflictions sore long time I bore,
Physicians was in vain,
Till God did please that death should come
And ease me of my pain.

Bayou Bœuf was a most forlorn place, and we were glad enough when at 3 o'clock, April 9, we received orders to strike our tents and stow them away, also all baggage whatsoever, as we should carry nothing but a blanket and our rations. At 9 we started for Brashier City, ten miles away, our brigade in advance, We had a frightfully hot and dusty march. The first two or three miles there was scarcely any road at all, a mere foot-path, passing now amid sugar plantations and now through potato fields. Several miles were through a dense wood, where the heat was perfectly stifling. I noticed pinks, verbenas growing wild along the roadside, also the myrtle. Soon we came out on the broad road running along the Bayou, and here we halted for an hour at noon and snatched a dinner and a bath. Reached Brashier City at 3 o'clock and put up our shelter tents, expecting to cross in a few hours. Emory's division was then crossing. Here we lay, expecting every minute to leave, till Saturday at 3 o'clock, when we were ordered aboard the St. Mary's. Although it was a small boat, yet the 52nd Massachusetts, the 24th and 25th Connecticut, and a battery with horses, were stored on board. Just imagine how we were dove-tailed and crowded together. We steamed out of the bay at 9 o'clock Sunday morning, — the Clifton, flagship, ahead, then the Calhoun, Arizona, St. Mary's, Laurel Hill, and two or three little tugs, — up through the succession of little lakes that chain together from Berwick Bay, through inlet and outlet, till we emerged

at noon into Grand Lake. Here the Arizona got stuck, and after vainly trying for two or three hours to get her off, we pushed ahead and about sundown came to an anchorage in a pretty little bay. But after sending a party ashore to reconnoitre, we discovered it was the wrong place, and General Grover signaled to heave anchor and stand off and on. This morning at daybreak we ran in, surprising the enemies' pickets, and a brisk skirmishing has been going on. We are landing under the cover of the Calhoun, which is shelling the woods. Our object I suppose is to cut off the retreat of the rebels, which Emory's and Sherman's division crossed Berwick Bay to attack.

As he wrote these lines he probably little thought what a day might bring forth, and he could not have realized the scene if he had thought. The next morning, April 12, came the hard-fought battle of Irish Bend. In the evening he writes to all near and dear to him: —

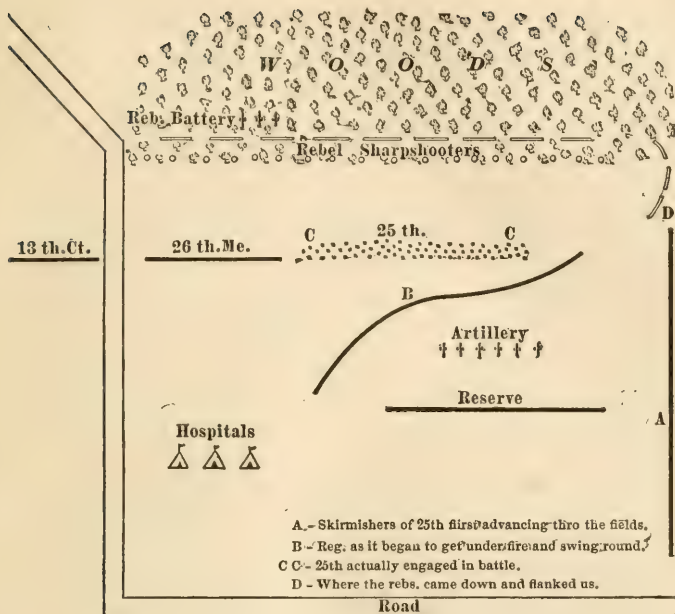
MY DEAR BROTHERS AND SISTERS, — Through the mercy of God, I am spared to write you of my safety. We have had a terrible battle and the 25th has suffered severely. For an hour and a half, we were under the hottest fire entirely unsupported; then the rebs succeeded in flanking us and we had to fall back a short distance, but the tune soon changed and the rebs retreated. We went into battle with 380 men and lost 73 wounded, 10 killed and 14 missing. Our brigade, was about the only one engaged, and we lost over 300 men killed, wounded and missing.¹ Colonel

¹ In the official returns the 25th Conn. is reported to have two officers killed and seven wounded, seven enlisted men killed, seventy-two wounded and ten missing. 15 W. R. p. 319.

Birge had his horse shot under him, also Captain Norton. We had two officers killed and four wounded. I had a ball pass through the sleeve of my left arm without so much as scratching me. Another crossed my breast, cutting nearly in two the strap coming over my shoulder to support my sword-belt. It seems almost a miracle that I escaped unhurt. When we fell back I was endeavoring to bring in a wounded man, and a second ball laid him lifeless in my very arms. The shots fell so thick and fast, we could see them strike within a foot or two all around us. This is no exaggeration.

April 15. I have had no chance to send this, but as I find I can probably send it soon, I will try and add a few lines by the bivouac fire. We have formed a junction with Emory's division and Weitzel's brigade, and are in close pursuit of the flying rebs, seven miles from New Iberia. We have taken something like five hundred prisoners, three pieces, and five or six caissons, and the rebs, fearful of the Diana and the Queen of the West falling into our hands, burned them. In addition to this, the Arizona, when aground, engaged and blew up a reb gun-boat. But I can write no more. Will try in my next to send a plan of the battle-field with a detailed account. We are in hot pursuit, our advance skirmishing with General Moulton's rear guard.

“April 18, 1863. Two miles from Vermillionville. As we are halting to repair a bridge that the rascally rebs have burned I will try and write a few lines. Enclosed is a small plan of the battle of Irish Bend, which in my letter of April 15 I promised to send. I will now go a little more into detail of the events of April 13. We landed about 11 o'clock



and immediately marched up through the woods to the edge of a cane-field, where we halted till 4 in the afternoon. Meantime our forces were skirmishing with the rebs and gradually driving them back, just saving the bridge over the Bayou, the flames of which we succeeded in extinguishing. At 4 we started, crossed the bridge and advanced a mile, when we were drawn up in a field in line of battle; but the 26th Maine and the 159th New York soon drove in the skirmishers, and night coming on, we lay on our arms. It was quite cold and showery, but we did n't dare build fires to dry us or make coffee.

“At 4 A.M., April 14, we started, the 25th in advance,

thrown out as skirmishers on the right of the road; the left was protected by the Bayou. We advanced for about two miles through cane-fields without meeting anything, till at 6.30 we entered the main plantation, the mill on our extreme left close to the road, while on our right were thick woods. Here we first encountered a dropping fire, and our line of skirmishers gradually swung round till finally they occupied the place marked C—C. But for an hour, till reinforced, our line extended also over the space occupied by the 26th Maine. As we swung into position, we suddenly heard the cry, 'Attention Battalion, take aim, fire!' and immediately the woods seemed to spring into life, while a perfect storm of canister, grape and minie balls was rained down upon our ranks.

"Taking advantage of every little ridge and furrow, we slowly advanced, loading and firing, while our artillery engaged the rebel battery. Here we were in an open field for an hour and a half, seen but not seeing, for the rebs were concealed in the woods and did not needlessly expose themselves, so the most of the time we could only aim and fire at the flash and the smoke. The men now began to be carried out pretty rapidly. About 7.30, the 26th Maine came up on our left, while the 13th crossed the road and tried to capture the reb battery. About 8 o'clock suddenly there was a terrific yell and 1100 men rushed in on our flank and commenced peppering us well. I have heard men speak of a hail-storm of bullets; but I never imagined it before. We were between two fires and the way the balls whisked and zipped among the cane-stalks and ploughed up the ground around us was truly astonishing. In less than ten minutes two thirds of all the loss we experienced on that

day occurred; still, though under a tremendous fire, scarce a man left the ranks, till the order was given to fall back. My former orderly, Holden, fell by my side pierced by three balls, my sergeant lost his leg, my first corporal had a ball pass through both jaws, cutting off his tongue, my second one had a flesh wound in his thigh, and one of my men was slightly wounded in the arm, as he stood behind me and passed me a cartridge (for I used a gun all through the action). There is scarcely a man in the regiment but what has a bullet-hole to show in some part of his clothing, and some have two or three. One had his life saved by his metal tobacco-box, which received and stopped the ball. Sergeant Goodwin of Co. A was wounded in his foot. It is a wonder Colonel Bissell was not shot, as he constantly passed up and down the line encouraging the men. Colonel Birge and all four of his staff officers had horses shot under them. But there was no use in our remaining under a cross-fire, and we were ordered to fall back, which we did while three other regiments advanced and drove our flankers in; at the same time the 13th succeeded in flanking their right and they decamped.

“We halted for an hour, forming round the colors, and then advanced by the road into the woods and here we remained till 5 o’clock P.M., when the rebs burned their gun-boats and skedaddled; but almost all the time we were constantly annoyed by their skirmishers and shells from their gun-boats and battery. Soon after entering the wood I was ordered to the front with four men, to keep concealed and send back reports of what the rebels were about; no very pleasant job, for the balls were flying thick. I never suffered so from thirst in my life as I did during the con-

flict. It seemed as though my throat would burst. I had eaten nothing since the night before, a sick headache came on, and I could scarcely move after the real excitement was over till I got an hour or two of sleep there in the woods. At 5 P.M. we marched back to the Bayou and encamped.

“April 15, we started for Newton or New Iberia, distance thirty-one miles, reaching there on the eve of the 16th. It was a terribly hot and dusty march and the men were very foot-sore. Emory’s Division was ahead of us and skirmished all the way with General Taylor’s forces (for he commands the rebel forces and is a son of old Z. Taylor). They took some five hundred prisoners. At Newton we found most of our missing men, who had been paroled by General Taylor and left there. New Iberia is a very pleasant place of some fifteen hundred inhabitants. There are some very beautiful mansions, with grounds laid out in fancy style. There is a small foundry in the place and a couple of magazines; one of its three churches was stored with powder and ammunition abandoned in the flight. The people were more Union than any we have previously seen, and were of a better class than the ordinary run. Provisions were at almost fabulous prices. Eggs fifty cents a dozen, coffee six dollars a pound, and flour one hundred and fifty dollars a barrel! Just think of that! By the way, we found out from our rebel prisoners how their men lived. They had only one commissary wagon drawn by six oxen for an army of six thousand men. They lived upon the plantations as they passed along.

“April 17, we were aroused at 3 A.M., but through some delay we did not start till 6 o’clock. Our division was alone, Emory’s division having taken a circuitous route. We made

a terrible march of twenty miles. The men fell out by scores, but we pushed the rebs so hard, we captured their officers' baggage-wagons. At 5 P.M. they made a slight stand, and an artillery duel of an hour's duration ensued, in which we lost two or three men. The rebs then retired burning the bridge over the Bayou. We halted for the night and have been most of the day constructing a new bridge. It's a very good rest for the men, but those confounded rebs will just escape us, I am afraid. I suppose we are bound for Alexandria via Opelousas. By to-morrow or to-night we shall be off again. I must close, for there is an opportunity, I hear, to send back."

For once his guess was correct. They drove the Confederates before them, and on April 20 occupied Opelousas, which since the capture of Baton Rouge had been the capital of the State of Louisiana. Here General Banks gave his worn and weary army a rest until May 5. The 25th Connecticut took position about ten miles east of headquarters, at Barre's Landing, now called Fort Barre. While the privates enjoyed the suspension of active operations the officers seem to have been unusually busy, as their numbers had been greatly reduced by resignation, sickness and death.

With a little rest his natural exuberance of spirit burst out afresh.

BARRE'S LANDING, *April 28, 1863.*

Daddy Goodell has been jubilant this morning and in a state of unwonted excitement. Cause, the receipt this morning of the "Atlantic" for April, and seven letters including yours of April 4. Thrice-happy dog of a Goodell! Sweet Singer in Israel, why recall to my mind the touching

farewell sung in the streets of Springfield at midnight. It harrows up my soul and leaves me high and dry on a waste of mournful reflections. Don't speak to me of currency of any description. That infernal paymaster has not yet blessed us with his appearance, and despair drives me in a single night to swearing in bad German. Don't ask me where I am? Know then, Friend of my Soul, that we are seven miles from Opelousas, the rebel capital of Louisiana; that it has surrendered at discretion and lies prostrate at the feet of the American eagle, while that most eccentric bird flops its broad wings from end to end of this most rebellious state and retires to brood in silence over the defiant aspect of Port Hudson. Since the battle of Irish Bend we have pressed the rebels hard all the way to O., fighting with their rear guard and taking prisoners all the way; and they were so completely demoralized that they scattered in every direction. Our cavalry made a splendid charge at New Iberia, with bridles hanging loose and sabres drawn, waving, shouting at the top of their lungs, they galloped into the Texicans, hacking them hilter-skitler. It was a grand sight and stirred my very blood, I tell you. We are now at the port of Opelousas and are shipping cotton by the scores of bales. We have sent some two thousand bales and have about five hundred now on the landing and more coming in hourly. At one place we found nine hundred bales. I was on picket the other day and had the good luck to fall upon one hundred and fifty rebel sabres, not a bad haul altogether.

He had a classmate who at this time was studying theology, of whom he made a world of good-natured fun.

Sometimes he would write in ludicrous and pathetic strains on the importance of the ministerial office, and then, assuming the position of a penitent sinner, would ask advice for the guidance of his conduct, as absurd as to ask for a dispensation before drinking a glass of water from the Mississippi River. From Barre's Landing he writes to this friend:

BELOVED D. D., — How was my heart delighted yesterday on receiving the "Atlantic" directed in thine own hand. It smacked so strongly of a bookseller's shelves, that Daddy Goodell, like some worn-out war horse at the sound of a trumpet, pricked up his ears and for the space of an hour sat sniffing the leaves without reading a single word. I am promising myself all manner of feasts when I come to read it, but just at present I am terribly busy, for in addition to being the only officer in command of Co. A (both its officers being put *hors de combat* on the field of Irish Bend), I am sitting on a court-martial, trying those thrice unhappy cusses who have violated all law, civil, religious and military. We are in a very interesting condition, for our baggage-trains were seized at Franklin to carry ammunition, and all our baggage left there; consequently, this being the 11th hour, in which my shirt is washed, your uncle has to lie abed while it is drying. I have numbered my shirt No. 6, but it is a pleasing delusion from which I constantly awake to naked facts. Had a letter from Pater Gridley ¹ the other day. He is in for three years. Asked all about you and what you were doing. I wrote him that our D. D. was fighting the devil at Cambridge right man-

¹ Henry Gridley, a classmate.

fully, and was succeeding admirably in subduing his carnal appetites and passions.

Bless me, the steamer is whistling and I must close.

As ever

DADDY GOODELL.

Some time about the first of May the paymaster arrived. It was an occasion of great interest to the soldiers, as they had not been paid for nearly six months. Many wished to send money to their families, who in many cases were sorely in need of it. But they were more than two hundred miles from New Orleans, the nearest point from which they could send it with any safety. There were no Confederates in arms between them and New Orleans, but the country was full of men who had broken with law and order, and who held any human life very cheap except their own, and who would take great risks with that when money was at stake. How to send the money the men could spare to New Orleans became a vital question. It not only required an honest man and a good accountant, but it required a man of courage, whose head was level, and would be under any circumstances, and whose resources were at command in any emergency. The colonel nominated Lieutenant Goodell, and the regiment confirmed the nomination by unanimous vote. This tells its own story of the position he had won for himself in the minds of his fellow soldiers, both officers and privates.

In a paper printed in this volume entitled, "How the pay of the regiment was carried to New Orleans," he has made it very apparent that the responsibility he felt made the duty imposed upon him a very arduous one. During his

absence, which was longer than he had expected, the army had marched a hundred miles in three days and four hours, had occupied Alexandria, and in coöperation with the navy had destroyed the Confederate fortresses and scattered their forces to the wind, and had started down the Red River on their way to Port Hudson. Goodell met them at Simsport and here he begins his story of the advance upon that fortress.

On May 21, we received orders to march, and at 12 embarked on board the Empire Parish along with the 13th Connecticut and the 159th New York. You can imagine how crowded we were and add to this the fact that a good many men of the . . . were drunk and inclined to be quarrelsome. Poor Colonel Bissell was quite ill and had to seek a berth immediately. Soon after 3 P.M., the rest of the boats being loaded, we slipped from our moorings and away up the Atchafalaya to the Red where we passed the Switzerland¹ and the Estrella watching for rebel craft from Sheveport. Down the Red to the Mississippi, where we came upon the grim old Hartford [Rear-Admiral Farragut's flag-ship]. The band of the 13th saluted her as we approached, playing 'The Star-Spangled Banner,' and 'Yankee Doodle.'

At 12 at night we disembarked at Bayou Sara some sixteen miles from Port Hudson. The rest of the brigade

¹ The U. S. S. Estrella had made its way up from Berwick Bay with the army. The U. S. Ram Switzerland had on the morning of March 25, in company with the U. S. S. Lancaster, undertaken to run by the batteries at Vicksburg. The Lancaster was destroyed by the enemy's fire and the Switzerland received a 10-inch shell in her boilers, but escaped, to join Farragut and take a part in blockading the Red River.

marched on and left our regiment to unload the boats. It was 2 A.M. before any of us lay down and at 4, May 22, we marched breakfastless to overtake the brigade. The colonel we left at a house with a guard, the major assuming command of the regiment. We marched one and a half miles, and found the brigade encamped at St. Francisville, which is set on a high hill, the first we have seen since coming to Louisiana, and here we actually saw some stones. The boys welcomed them as old friends, and picked them up admiringly. Soon after 9 our column was set in motion, the 2nd brigade in advance. As we passed through the town of St. Francisville the people thronged to the doors and windows, some cursing and swearing, others welcoming and others again passive. One woman in a very spiteful tone calls out to a friend: "Come in, Mrs. Lewis, for God's sake and don't stand there staring at those Yankee devils!" I could n't resist taking off my cap and making her a low bow, which so exasperated her that, calling me some foul name and kicking out her feet in a most indecent manner, she vanished into the house. The manners of these Southern women are truly astonishing. They will curse and revile and call you foul names and call upon heaven to smile on a just cause. We had a terrible march up and down hill, between magnificent hedges of cape jessamine in bloom, very beautiful but terribly oppressive, for not a particle of air could reach us and the dust was stifling. We advanced very slowly, for it was a terrible country for skirmishes. We had a couple of men wounded but that was all the loss we experienced that day.

At 4 P.M. we halted and our regiment was ordered to the front as an advance picket for the night. We deployed

on a plain by a beautiful creek (Thompson's), where the water was knee-deep and ran clear as crystal. Co. K. was ordered across to hold the roads on the edge of the adjoining woods, and after a short skirmish succeeded in effecting their object. It rained quite hard, and of course we had to be upon the watch most of the night.

May 23, we started at 4 A.M., our men pretty well fagged-out by two nights' duty; but no mercy was shown, and the 25th was ordered to take the advance as skirmishers; and a terrible time we had of it straggling through sandbanks and ravines, forcing ourselves through bamboo brake, pushing under and over vines, wading through water, scratching and tearing ourselves with thorns, and stumbling over ploughed fields. It was thoroughly exhausting work and many a strong man gave out. At 9 o'clock A.M. we met the advance of Colonel Grierson's cavalry,¹ and our poor wearied column of men was called

¹ The name of B. H. Grierson, Colonel of the 6th Illinois Cavalry, is connected with one of the most daring enterprises of the Civil War. While General Grant was manœuvring to secure a position behind Vicksburg, he wished to distract the attention of the enemy and wrote to Major-General Hurlbut on February 14, 1863: "It seems to me that Grierson with about 500 picked men might succeed in making his way south and cut railroad east of Jackson, Miss. The undertaking would be a hazardous one, but would pay well if carried out. I do not direct that it shall be done, but leave it for a volunteer enterprise" (24 W. R. P. III, p. 50). Colonel Grierson was not a man to decline such a challenge from the commanding general, and without doubt the general knew it. He started from La Grange, Tenn., April 17, with about seventeen hundred men, and four days later detached six hundred of them to destroy the railroad between Columbus and Macon and make their way back to La Grange. This move threw the enemy into confusion, and with the remainder of his command he pushed on, making a march of some six hundred miles in sixteen days, destroying as he went railroads, telegraphs,

in. Advancing one mile, we halted in a field near a well of deliciously cold water, about two miles from Port Hudson. In a few minutes General Augur rode up and the generals held a conference together.

At 7 P.M. I was suddenly detailed with forty men to go on picket. Pretty rough on a fellow to be three nights on duty; but a soldier's first duty is to obey without grumbling, so I went, though I could hardly keep my eyes open. It was a magnificent moonlight night and I sat and watched the bombs from the mortar boats for hours, curving round in the heavens and bursting in a fiery shower. The night passed without disturbance, save one or two false alarms.

At 4 A.M. May 24, I started out black-berrying, and in a very few minutes had more than enough for a good meal. Fancy me peacefully gathering berries under the guns of Port Hudson. At 8 A.M. we were called in and at 9 we commenced making a Sunday advance on the centre fortifications. The 2nd Brigade was in the advance, and the 24th Connecticut lost a few men. At noon the first earth-work was taken and we deployed in the woods to the right and stacked arms. We lay here a couple of hours while shells exploded and burst around us and over our heads, but we were mercifully preserved though in great danger for a time. Soon after 4 P.M. the right wing was ordered out as picket-skirmishers, — that is, we were stationed behind trees, one to a tree all through the woods, to keep the enemy back. On our right was the 13th Connecticut, and on the left we joined the 24th Connecticut. This was the fourth

and an immense quantity of public stores, arrived at Baton Rouge, May 2, and was detained to coöperate with General Banks in the operations around Port Hudson.

night I had been on duty and I was thoroughly worn out, but they had n't done with the 25th yet. May 25, we were called in and relieved at 9 A.M. by the 12th Maine. As I was relieving my men, followed by the 12th Maine, we had to pass over a plateau commanded by the sharpshooters of the enemy. The bullets whistled most unpleasantly near and killed one of the 12th. I saw him fall and called upon his comrades to bring him in, but not one started, and I actually had to go myself with one of my own company and pick up and bring in the dying man. We naturally supposed after being relieved we should get some repose; but hardly had we come in, when we were ordered to fall in. We marched out of the woods and up over the hill and the intrenchments taken the day before, and immediately came under a sharp fire from sharpshooters. The . . . having disgracefully abandoned their position, we were ordered in to drive the rebels out, and after a sharp skirmish of half an hour we drove them clean out of the woods and into their rifle-pits, while we occupied the woods, — the extreme edge of the woods, — and kept up such a sharp fire that not a mother's son of them durst lift his head above the works. We were just in time to save the 12th Maine from being flanked and cut to pieces. In the afternoon General Weitzel's brigade attacked, and after a severe fight drove the rebels out of the woods. This was going on on our right and we could hear the yells and hurrahs, the crackle of musketry and roar of artillery, and other concomitants of the fight, but we could see nothing and we sat and fidgeted round, not knowing when our turn might come.

At 8 P.M. we were relieved by the 159th [New York],

and so tired out was I that I fell right down on the bare ground and never woke till 8 or 9 o'clock next morning.

May 26, we remained on the reserve till 4 P.M. when the three right companies were ordered to the front. We had a splendid sight of an artillery duel going on in which the practice of Nims's battery was perfect. They dismounted two or three guns, and altogether were so sharp that the rebel gunners did not dare load their pieces.

May 27. We were relieved at 5 A.M. by the 13th [Connecticut], but were almost immediately after ordered out to the support of a new section of Nims's battery which had just been got into position. Here we lay for five or six hours flat on our faces, while the enemies' shells burst in most unpleasant proximity. Then our regiment and the 159th [New York] were ordered over to the support of General Weitzel on the right. We marched almost on the double-quick through the woods, and were ordered by General Grover to advance to the front and carry an earth-work. We were told there were hardly any rebels there, and Mayor Burt of the 159th, who was in command, was told that his regiment alone was sufficient to carry the works, and to send back the 25th if it was not needed. A more bare-faced lie never was got up, as the sequel will show. We pushed on through the woods, rushed down a hill swept by the enemy's artillery, turned a sharp corner and emerged on the entrance to a plain. I shall never forget that sight: the valley was filled up with felled trees, ruins of houses and débris, while thick and heavy rolled the battle-smoke. There was a hill on the left strongly intrenched, and from its centre loomed up a big gun, black and gloomy, threatening to annihilate us; just below, on a

little bridge, was planted a stand of the stars and stripes, the glorious old banner, and clustered around it stood a handful of brave men pouring a stream of balls upon that piece; and for seven long hours the gunners did not dare approach to load, and that frowning gun kept silence.

It was a sort of floating panorama that passed before me, a hideous dream in which I was a mere spectator. There was a roaring and crashing of artillery and bursting of shells, a crackle and rattle of muskets with hissing and whistling of balls, and battle-smoke lowering and settling down upon us. There were men dropping here and there, headless trunks and legless, armless unfortunates, and all the horrid concomita of war, and still we kept on. A short turn to the right, and in single file we commenced ascending through a water-course. Wading through water, stumbling under and over logs, we finally emerged in a square pit, some six foot deep; climbing out of that, we were on the side of the hill. Oh, but it was a wicked place to charge, — the nature of the ground such we could not form battle line and had to make the attack in three columns, while felled trees were criss-crossed in most inextricable confusion.

We lay for two or three moments with beating hearts waiting for the forward charge. The word came, and with a terrific yell we rose to our feet and rushed forward. I headed the left column. It was a terrible moment when, bounding over the last tree and crashing through some low bushes, we came out not ten yards from the intrenchments and a hundred rifles cracking doom at us. Why, we were so near they actually seemed to scorch us in firing! It was too deadly for men to stand against, and our brave fellows, mowed down as fast as they could come up, were beaten

back. Here occurred one of those heroic deeds we sometimes read of. The colors of the 159th were left on the hill, their sergeants killed. Corporal Buckley, Co. K. of our regiment, hearing of it, calmly walked back in that terrific fire, picked them up and brought them in, turned to pick up his gun, and was killed. He was a noble fellow and much beloved in the regiment.

Resting a short time, we made a second charge, but with like result. Our two regiments lost 75 killed and wounded. It was a horrid old place we were in. Sharpshooters on the left picking us off. Sharpshooters on the right giving it to us; and in front the rifle-pits. Here we lay till 10 o'clock at night, when we were ordered to fall back, which we did, bringing off most of our wounded. I had fallen asleep and barely woke in time to get off. One or two did sleep through till morning, and then managed to get away. I had one killed and three wounded in my little company.

As this is getting too long I will carry on the narrative in my next.

For Eliza's special benefit, though I have answered it three or four times already, I will state that Co. F. has not been dissolved and that I am at present acting adjutant, which office I have been endeavoring to fulfill the last three weeks, our adjutant having been sick almost ever since we came here. Our colonel we miss sadly, and do earnestly hope to welcome him back one of these days. Our regiment numbers 167 for duty and 9 officers. I am glad you did n't send any camphor, for I procured some in N. O. Thanks for the Springfield ["Republican"]. It comes quite regularly and is a great treat. If you make any extracts from my letters I wish you would please not put my name to them.

They get back here to camp and it is exceedingly provoking.
With ever so much love,

HENRY.

May 28 he writes:

As there is an opportunity to send letters, I will write a few lines to let you know of my safety. This is the sixth day of the siege and we are pretty well played out. We have had to fight for every inch of ground, but have carried the first two earthworks by storm. It has been one continual fight since we commenced, but there is a cessation of hostilities for a few hours, and the lull is a perfect relief, for my ears have been half-stunned by the deafening roar of artillery and the crack of musketry. We have lost four killed and twenty wounded and some thirty in our regiment missing. Again, in my little company, have four been wounded — one fatally, so I am afraid. My life has been in great danger several times, but a kind Providence has kept watch over me thus far and I trust will bring me out safe to see you again. The regiment is now under the command of Major McManus. The colonel is prostrate with a remittent fever at Bayou Sara, and the lieutenant-colonel is sick at New Orleans. The colored regiments have fought splendidly and made several brilliant charges.

In haste,

HENRY.

The next letter is dated June 20 and carries the story to a day or two after the second assault on the rebel works, and was probably written from the camp of the storming column; but not a hint as to that subject. A chaplain's wife writing to her husband says, "We get no letters from

the soldiers these days." To which he replied, "The soldiers have no time and no material to write with and are on duty the whole time." The truth is, the siege was being pressed with the utmost vigor. Goodell entered into the spirit of the time, and we are told that, when his regiment was not employed, he would ask to be allowed to join some company where he had friends, and was once seen returning covered with blood; aid was sent out to him, but it was found to be only an attack of the nose-bleed.

I left off in my last with the unsuccessful charges made by our regiment and the 159th on the 27th. About 10 o'clock that night we silently withdrew, bringing away all the wounded we could reach, but there were some poor fellows lying up under the breastworks it was impossible to reach. Every time we tried to get to them the rebs would fire on us. We threw them canteens of water and the inhuman rebs fired on them when they tried to reach them. We marched back and lay on the battle-field of the preceding day among wounded and dead men.

May 28, at 4 A.M., we marched back into the woods, and lay in support of a battery. It was very trying, for the rebs had a perfect range, and five or six times a day they would throw those immense eleven-inch shells right over into our midst. We could hear them coming for several seconds, and we lay flat behind trees. Luckily none were hurt, though we had some very narrow escapes. There was a cessation of hostilities all day to bury the dead.

At 7 P.M. the enemy made a fierce onslaught on the right, but were driven back with heavy loss. We fell into our places, expecting momentarily to be called into action,

but we were spared it. At this place we remained till the 1st of June when we were ordered quarter of a mile to the rear. Colonel Weld came up from New Orleans and assumed command of the regiment. It makes me heart-sick and indignant every time I think of the way some things have been managed here and the cowardice displayed by officers; but I may not mention it here. On the 3d [June] we were attacked in the rear and two brigades were despatched to attend to the case of the rebs; but on reaching Clinton they found they had skedaddled and fled. While lying here in the woods, an awkward adventure happened to me. Being acting adjutant, I was sent one dark night to report a fatigue party to General Grover's headquarters. Returning I lost my way. First, I found myself back at headquarters. Started again, and found myself out to the front, most unpleasantly near the rifle-pits. My next essay took me to the watering-place for the horses, and from there I found my way in, after a couple of hours wandering in the woods.

June 7 we were ordered to the front to relieve the 159th in the rifle-pits. We went out at night, as the enemy's sharpshooters rendered it dangerous going in the daytime. We had pits dug on the crest of a hill about two hundred yards from the rifle-pits of the rebs, and had loopholes from which to fire out. About one hundred yards back of us on another hill was planted one of our batteries, and as they fired over our heads you can imagine what a terrible report rung in our ears. It was truly deafening. Our boys got the range of the rifle-pits opposite perfectly, after a short practice, so that Mr. Secesh did n't dare show his head, though from his hiding-places he would annoy us all day long. After dark we usually held some interesting

conversations across the ravine, our boys telling them that if they wanted any soft bread, we would put some in a mortar and send it over, etc., etc. Our meals were brought out at 3 o'clock in the morning, and after dark at night. We lay here three days and were relieved on the 10th by the 159th. I was very much interested the last day in watching a snake swallow a toad. It was astonishing how wide he opened his jaws and pushed a toad down, three times his diameter. Rather a curious place to study natural history, under the guns of Port Hudson. We returned to our old camping-ground. June 11, between 12 and 1 P.M., a general assault was planned, but owing to some misunderstanding the scheme failed and we were repulsed.

June 14 we were under way at an early hour, for we formed the reserve to the attacking column on the centre. Colonel Birge was in command of the reserve. We rose at 2 A.M., had coffee, and started under the guidance of Captain Norton at 3. In a few moments we heard a terrific yell and the crash and roar of artillery and musketry. Soon the wounded and dead began to be brought in, some faint and pale, others cursing and swearing and vowing they would go back for revenge. All kinds of conflicting rumors were rife as to the success of our brave fellows. Then General Paine was wounded and Colonel Birge assumed command, we, forming the reserve, being under Colonel Morgan. Soon we were ordered forward. On through the scene of our first day's fight, then down through a ravine where a road had been cut. Halting at the foot of a hill we formed line of battle and charged, but it was a great mistake, for instead of creeping round the hill we had to charge over it, down through the ravine and up the next before we could reach

the breastworks. The consequence was we were exposed to a raking fire as we went over the crest. Here we lost two lieutenants and seventeen men wounded. We arrived at the other side in great confusion. There were parts of twelve or fifteen regiments all mixed up together and entangled among the fallen trees. After several hours straightening, line was once more formed; but the order to charge was countermanded, and we lay up there in a terrible sun all day. I was quite sick when we started, with violent vomitings, and had to lie down, but rejoined the regiment during the charge. At 8 P.M. we were ordered up into the outer ditch of the breastworks, but we had been there but a short time when we were ordered to the right, to our old position in the rifle-pits, which we reached about midnight. Poor General Paine had been wounded in the leg in the early part of the day, but we could not reach him to afford him any aid and he lay there in the burning sun till night, when we brought him off in safety. It was a fearfully hot day and quite a number were sunstruck, some fatally. I wore wet leaves in my hat, but about two in the afternoon could stand it no longer and had to lie down in the shade. This was a miserable Sunday scrape, and like all scrapes commenced on Sunday ended disastrously. The loss of life was frightful.

June 15. We were relieved at night by the 28th Connecticut and returned once more to our old camping-ground, where we remained till June 19, when we were ordered a mile and a half to the right, to support the colored brigade, where we are still, June 20.

As ever, with oceans of love,

HENRY.

June 15, the day after the second assault on Port Hudson, General Banks issued his famous general order no. 49, the only one of the kind issued during the war, calling for volunteers for a storming column of a thousand men, "to vindicate the Flag of the Union and the memory of its defenders who had fallen! Let them come forward . . . every officer and soldier who shares its perils and its glory shall receive a medal fit to commemorate the first grand success of the campaign of 1863 for the freedom of the Mississippi. His name will be placed in general orders upon the Roll of Honor."¹

The next day the order was promulgated and two days later, on the 18th, Goodell wrote to a classmate: —

In the words of Prof. Tyler in his 19th disquisition on Homer, "The battle still rages. Omnipotence holds the scales in equal hand, but vengeful Hera upsets them." This is the 25th day of the siege and we are still stuck outside the fortifications. Last Sunday we made a general assault, but were repulsed with terrible loss. We got inside three times, but for want of support were driven out. Oh, but it was a terrible place where we charged, — a perfect murder the way it was managed. Instead of creeping round the hills and starting directly for the breastworks, they ordered us to charge across two hills and two ravines before coming to the base of the last; and consequently we were exposed to a withering fire as we went over the crest of each hill, men were mown down right and left. It is wonderful how I have been preserved. I have been in four direct assaults on the works, half a dozen skirmishes and one fight, and yet

¹ 41 W. R., 56.

not a scratch have I received. Washington Allen [a class-mate] was slightly wounded on Sunday by a piece of a shell, but nothing dangerous.

There has been a call for a thousand volunteers to storm the works, and officers to lead them. I have volunteered among the number. Don't think me rash. I thought the matter over a whole day before signing my name, and it seemed too clearly my duty, to refuse. If I fall, "*Dulce est pro patria mori.*" Your "*Atlantic*" I received safely. Many thanks. It was indeed a treat to get something to read. There were some capital things in Gail Hamilton's "*Spasms of Sense*," especially what she says of married women being heard from only six times in ten years and each time a baby. "*Reminiscences of Buckle*" were good; but is n't the author a conceited, egotistical wretch! But was n't I living over college and Easthampton days when I read Ik Marvel's pastorals! I could most hear the bees humming round the Castilian fount. Do you want to know how we are living in the woods? Well, we have scarce nothing at all for breakfast, and have the leavings for supper. We have become ardent students of botany, but it is trees we study, and in proportion as the shells fly thick so do we hug and admire some thick and sturdy magnolia. Yes, "*paradoxical as it may appear*," the larger the specimen, the greater our admiration. I am now acting adjutant. I am happy to report that I have been promoted to first lieutenant.

In the bonds of Antiquity,

H. H. GOODELL, DADDY.

The use of the word "*paradoxical*" here is an illustration of the fact that nothing ludicrous ever escaped his notice.

One of the tutors, while conducting devotional services in the College Chapel, in his prayer waded into the deep waters of theology, lost his foothold and slipped in all over, and after floundering about for a while came to the surface with a statement in flat contradiction to what he had been saying. But he took in the situation and very dexterously extricated himself by saying: "Paradoxical as it may seem, oh, Lord!" This was too much for Goodell; he never entirely recovered from the shock and "Paradoxical as it may appear" became with him a favorite phrase, good on all occasions and for all purposes.

June 23 he writes to a classmate: —

Before PORT HUDSON, *June 23d, 1863.*

There have been two especial reasons for my not writing you before. One is that we have been told no soldiers' letters are allowed to leave for the North, and the other is that I have delayed hoping to write you of the fall of this stronghold; but still the siege drags its slow length along. Our days are divided betwixt rifle-pits, making assaults, and repelling sallies. The rebs hold their rifle-pits and we advance ours or remain stationary. Yesterday the colored brigade carried a hill by storm and have held it, notwithstanding the repeated and great efforts made by the rebs to retain it. Sunday, June 14, we attacked the fort at three points but were beaten back with a frightful loss. It was perfect murder, the way affairs were managed; where we charged at the centre, instead of creeping round the base of the hill and starting a few yards from the breastworks, they made us charge over a hill, down through the ravine

and up the next side. The consequence was we were exposed to a sweeping fire and everything got jumbled and mixed up, so that by the time the ditch was reached there were parts of eight or ten regiments in the direst confusion, without head or tail. It took several hours to straighten matters out, and just as we were ready to go at them again the order was countermanded. We lay there in the burning sun until night, and then withdrew with our wounded and dead under cover of the darkness. Ah, Dick, these Sunday attacks are worse than useless! They are criminal. It was with a heavy heart I went in on the 14th, for I felt we could do nothing.

General Banks has now called for a thousand volunteers, with officers, to lead in storming the works. Old Daddy has volunteered, not from any desire of reputation or honor, I assure you, but only because there seemed to be a lack of officers and it seemed my duty to go. It is a desperate undertaking, but I am in the hands of One who is able to avert the deadly missiles if he sees fit. Captain Allen of the 31st Massachusetts was wounded but slightly on Sunday, and Clary of '61 was killed. Captain Bliss of the 52d Massachusetts was badly wounded and has subsequently died. Ceph Gunn and Frank Stearns are all right, but Jut Kellogg and Severance are both sick in New Orleans and have not been up here at all during the siege. I had a letter from Pater Gridley the other day. He is still in Baltimore. Wishes to meet some of the fellows this summer, but I do not expect (if I am alive and well) to reach home before September for our time is not out until the 11th of August. However, nothing preventing, I shall make a tour among the fellows when I get back. Along with your letter I got

a nice one from old Stebs the other day. . . . I have received five or six Springfields ["Republican"] lately from Charlie. Tell him I will try and write him soon. I am so glad Mase [M. W. Tyler] and Rufe [R. P. Lincoln] came out of their baptism of fire and blood safely. God preserve them to the end! My kindest remembrances to Professor and Mrs. Tyler when you see them. I see by the papers that the Faculty are up and preparing for themselves mansions in Amherst. What demon of extravagance has seized them in these war times? — Confound these flies! I can't write any more. They are the greatest pests going. There is no putting off their importunity.

With ever so much love, in bonds of antiquity and '62,
DADDY, H. H. GOODELL.

The newspaper reporters soon got hold of the list of volunteers and of course it was given to the winds. On the 26th of June he wrote the following letter to his brother-in-law, Mr. James Bird of Hartford: —

"For fear Abbie and Eliza should see in the papers my name among the list of those who have volunteered to storm the works of Port Hudson, I will write to you of it myself. I did not intend you should any of you know anything about it till it was all over, but some confounded newspaper correspondent has got hold of the list. If it is a possible thing, keep the list out of Eliza and Abbie's hands. It will only cause them unavailing anxiety. I have volunteered, and also, because there was a lack of officers, to lead. I assure you no other considerations would have induced me to put my name down. I trust it was nothing but a clear case of duty that impelled me to take this step. The

charge will probably take place in a day or two, and I will try and write as soon as possible afterwards. In the event of my falling I have prepared a letter with some slight instructions about my things which I have placed in the hands of Quartermaster Ives. He has kindly promised to look after my traps here and bring them to Hartford on the return of the regiment.

“There is nothing particular going on just now. Yesterday the rebs made a charge on the centre, endeavoring to capture Terry’s marine battery, but they were repulsed with considerable loss. The darkies have behaved splendidly. Two days ago they carried some rifle-pits by storm, and ever since there has been sharp fighting, the rebs making ineffectual attempts to regain them. We are all in good health and spirits and hope for a speedy termination of this terrible conflict. One of the 4th Wisconsin captured on the 14th of June escaped two or three days since, and he is to pilot us in. He represents them as having provisions for only a week longer. Would that they had them for only a day!

“Please send this letter to William [his brother] when you have perused it, and do as you think best about letting A. and E. see it; but it would be better if they could know nothing of the storming-party till it was over. Colonel Birge leads us in person and General Grover leads a strong support.”

This body of men was made up principally from New England and New York regiments, with something like a hundred and sixty from the Corps d’Afrique. “Two regiments in this corps, the First and Third Louisiana Guards, expressed their willingness to go. But a selection was made.”

What position Lieutenant Goodell held is not known. On June 28, the colonel commanding, H. W. Birge, informed General Banks that the organization was complete. "I have to report that the volunteers for the storming column are organized in two battalions of eight companies each, strength of company about 50 enlisted men; three and in some cases four, commissioned officers to a company. Battalion officers are, to each, one lieutenant-colonel commanding, two majors or acting as such, one adjutant, one quartermaster. One surgeon (from One hundred and Sixteenth New York) has reported. Present strength for duty is, Commissioned officers 67, enlisted men 826. Total 893."¹

These men had had two, and some of them three, dreadful experiences in charging earthworks within a few days, and yet they were willing to assault those same works again. "The stormers" as they were called were gathered in a camp by themselves and put on a regimen calculated to promote physical strength, celerity of action, and endurance. By every conceivable device did they prepare themselves for the work they were expected to do. They knew that all the arrangements for their support had been made, but the expected order did not come.

If ever a body of men deserved recognition from their country this column of stormers did. From June 18 to July 8 they waited for the word that meant death to many of them. General Gardner, the Confederate commander in Port Hudson, knew of their existence and confessed that he dreaded their assault. Some twenty years afterwards the subject of the medal promised in the general order

¹ 41 W. R., 603.

was brought to the attention of Congress, and although it was eloquently championed by the Hon. Henry Cabot Lodge, the House of Representatives refused to make the required appropriation on the ground that the men did not make the charge. A man who is willing to engage in a service of peculiar peril for his country in her hour of need, and waits twenty days in hourly expectation of the call to discharge that duty, it would seem, ought to have some recognition of his willingness to serve; for in this case, it was not his fault that he did not make the terrible exposure of all that man holds dear in life.

On July 4, Goodell wrote his last letter from Port Hudson. As will be seen, he had no idea of what was going on two hundred and forty miles up the river at Vicksburg, or fifteen hundred miles away at Gettysburg. At Vicksburg General Grant was quietly smoking a cigar as he wrote a dispatch to be sent to Cairo to be telegraphed to the General in Chief at Washington: "The enemy surrendered this morning. The only terms allowed is their parole as prisoners of war." The same dispatch was sent to General Banks. At Gettysburg the Army of the Potomac had inflicted a terrible defeat on the Army of Northern Virginia.

PORT HUDSON, *July 4, 1863.*

I verily believe this is the quietest, most matter-of-fact 4th of July I ever spent; positively not as much powder burnt as in New York or Boston; yea, verily, Hartford itself, with its swarms of ragged brats, can outstrip us. All is supremely quiet along the lines. Every now and then a boom, a bang and the bursting of a shell, for we must keep

the besieged from falling asleep and stir them up occasionally. Then pop goes a rebel; anon some white-eyed ebony "t'inks he sees suffin' moving on dat ar hill," and accordingly lets drive; or perchance some red-breeched Zouave, spying a mule wandering round in the fortifications, swears by the beard of Mahomet he'll spoil the rebel beef, and forthwith downs the critter. *Noon.* The music is becoming lively, the gun-boats are walking in and the batteries are pitching in, and altogether we are giving them "Hail Columbia," to the tune of "Yankee Doodle."

For the last fortnight we have been in an enviable frame of mind expecting each day to be ordered the next to participate in another general assault, but the orders have not come and each night we have drawn a long breath and said one more day of grace. "Very improper, Jane!" Well so it is, but while we are sp'iling for a fight we have a singular desire to avoid charging on the breastworks. We've seen the elephant, some of us four times, and each time have got bitten. On the 1st General Banks made us a stunning speech, assuring us that within three days Port Hudson should be ours; but the three days have waxed and waned and those confounded rebels still persist in keeping us out in the cold (a figure of speech, as it is the dog-days with a vengeance). There is no mistake about it; the rebs are mighty short off for provisions, and though the fortifications could probably now be stormed any day, yet why waste life when a few days will fetch the recreants to their milk? They are reduced now to mule-meat and a little corn. Deserters come in thick and fast. One day as many as a hundred came over, vowing they could n't stand mule-meat. I feel confident in my next of being able to take up the

triumphs over the fall of Port Hudson. General Gardner, who commands, was a West Pointer with Generals Grover and Goodin, and they were together at the time the war broke out, as captain and lieutenants in the 10th Regiment at some frontier fort. Gardner sent in his resignation and immediately deserted (well knowing the penalty), leaving his wife behind. General Grover escorted her in safety to the north, and she has since rejoined her husband in Louisiana. She is now residing in Opelousas. When we were there General Grover called upon her. She expressed the hope that he might not be called upon to meet Frank in battle, but that appears to be a hope not realized. Since coming here the two former companions in arms have met during the flag of truce. The rebs army use our rear continually. Their cavalry from Clinton and Jackson hover about, striking here and there, and picking up stragglers and forage parties. Day before yesterday they dashed into Springfield Landing, whence we draw all our stores and ammunition from New Orleans; but our cavalry were after them so sharp that they found pressing business elsewhere, and could only stop a few minutes. On the other side of the river quite a force has come down. They attacked Donaldsonville (of white-petticoat memory) a few days ago, demanding the surrender of the town and the fort, but the spirited provost-marshal, gathering together his forces amounting to about one hundred, got inside his fortifications and bid them come on. The unequal contest was kept up from midnight till daylight, when the sudden appearance of a gun-boat caused the rebs to skedaddle leaving a hundred dead on the field, several hundred wounded and one hundred and twenty prisoners, including one

colonel, two majors, four captains and several lieutenants.¹ Our loss was exceedingly small. Since then the little garrison has been strengthened.

Now comes the cream of everything. The rebs have got into Bayou Boeuf and captured or destroyed the whole of our division property there stored. Tents, baggage, knapsacks, company and regimental books, all swept away. We are all as poor as Job's turkey, or as that unfortunate damsel who had "nothing to wear." Except the rags that cover us we have not a thing. In common with the other officers, I have lost my blankets, overcoat, valise, dress-uniform and sash, and a hundred little knick-knacks picked up here and there. Were we near you I should write a feeling address to the soldiers' aid society for some pocket-handkerchiefs, being reduced to the last shift, that is the flap of an ancient shirt picked up in a deserted mansion. The adjutant has now returned to duty. I have gone back to my own company, or rather the first three, A. F. and D. being without officers, have been consolidated with F, and Captain Napheys and myself are in command. From Colonel Bissell we heard not long since. He is slowly and steadily improving, and we are hoping to count the days before we can welcome our colonel back. We have missed him

¹ The incident here alluded to ought not to be forgotten. The provost-marshal, Major H. M. Porter, reports, that "at 1.30 on the morning of the 28th, the enemy, about 5,000 strong, attacked both the fort and the gunboat, with infantry and artillery, and continued fighting until 4.30 A.M. There were about 180 men in the Fort and this was the first engagement of most of them. Nobly did the officers and men acquit themselves." The loss of the enemy he puts at probably 350 killed and wounded. In short the little garrison, with the gun-boat, put *hors de combat* about twice their own number. 41 W. R. 205.

sadly. But I really believe his sickness has saved his life. He never would have come out alive from the charge the regiment made on the 27th of May.

We are having just the tallest kind of dog-days. We spend all our time in trying to keep cool. You would laugh if you could see us at meals, in simply shirt and drawers, while our respected colored boy, Oliver, squats on his heels in front of us and keeps off the flies from our precious persons. This same Oliver is a case. Speaking of Mobile the other day he said, "Reckon you could n't feel dis nigga much in dat are town; specks he was born and raised dere, yah, yah, yah! Reckons he knows ebry hole dere from de liquor-shops to de meeting houses," etc.

We see by the papers Pennsylvania is again in danger. Were we only home, some of us would again be up a-girding on our armor and be marching along. But we trust you will do it without our aid and the Southerners will get so blessedly licked they won't know which end they are standing on.

Excuse this scrawl, but being a little under the weather have been writing lying flat on my back.

As ever with love,

HENRY.

I have got some potatoes, 10 cents, a bit of mackerel, and a couple of bottles of porter, and mean to celebrate the 4th to-night.

Three days after this letter was written, the dispatch from General Grant, just referred to, was received. The booming of great guns, the cheers of the Union soldiers and strains of patriotic music informed the besieged that some-

thing had happened, and they were not slow to divine the cause of the rejoicing. General Gardner sent under a flag of truce to General Banks to know if the report that Vicksburg had fallen was true, and received in reply a copy of General Grant's dispatch. The garrison had done their duty with courageous fortitude. The Union lines were already in many places up to their breastworks, starvation was already beginning to pinch, and should the expected assault be delivered it would be a waste of life, for they could not expect to hold their position. The 8th was spent in arranging the terms of surrender, and on the 9th "The Stormers" led the advance as the victorious army entered Port Hudson to put the stars and stripes in the place of the stars and bars. President Lincoln's long-deferred hope was realized, and he could now say, "The Father of Waters again goes unvexed to the sea."

The time of the nine-months' men was soon to expire and the 25th Connecticut left almost immediately for New Orleans, but was detained at Donaldsonville for a few days. The following letter will state the reason.

DONALDSONVILLE, *July*, 1863.

Once more, O Dick, at Donaldsonville. Three months ago, March 29th, on Sunday, I received an epistle from thee, and lo! on my second advent, on a Sunday, a second missive reaches me. To thy lares and penates I decree a hecatomb. Accept, my rustic pedagogue, my humble offering. You at the North are probably in a frenzy of excitement, we at the South have learned to take things cool, although the "canicula damnosa reigns supreme"; a phrase which, being translated into the vernacular à la H. W.

Beecher, signifieth "damned hot." Vicksburg, the stumbling-block to glory, hath fallen, Port Hudson hath caved in. Lee and his army have gone to one eternal smash.

Port Hudson has scarcely gone under when we are called to take the field again. The confounded rebs don't know how to stay whipped, and General Taylor, reënforced by General Magruder's Texicans, has again taken the field. He attacked us at Donaldsonville with a force in proportion to ours as 50 to 1, and got soundly thrashed. We, strongly reënforced, came out to meet him and got licked, and so the matter rests at present. It was a disgraceful affair our getting licked a week ago. The commanding colonel of the brigade suffered himself to be flanked through carelessness, being dead drunk, and they had to fall back with the loss of two cannon. Our brigade was on the reserve; we fell in and double-quickened it to the rescue, but too late, for they were in full retreat. A new line of battle was formed and the 25th was deployed and sent forward as skirmishers, but beyond a shot or two, we failed of falling in with the scoundrels. So after advancing about three quarters of a mile through the corn, we were ordered back and our whole force fell back about one quarter of a mile, where we occupied, and still hold, a strong position. The rebs meanwhile have skedaddled, but are probably fortifying at Labordeville, distant some twenty miles. What we are delaying here for, I can't imagine, unless it is to give time to a part of our forces to get in their rear. I hope it is so. By the way, I am happy to inform you that, Colonel Bissell being in command of the brigade, I have been appointed one of his staff as aide.

Dick, I must say that though I volunteered on the storm-

ing party at Port Hudson, yet it gives me great pleasure not to have my services required. Those works were confoundedly strong, and one half or two thirds of us would have paid the penalty of our attempt with our lives. War is not the glorious thing it's cracked up to be. Though we get used to all kinds of horrid sights, yet we can't get perfectly calloused. I could tell you some things that would fairly make your blood curdle with horror. I will omit all description as that is best learnt in familiar discourse.

The 25th Connecticut regiment, after one of the most trying campaigns of the war, was now to take another sea voyage and was mustered out at Hartford, August 26, 1863. Scant justice has been done to the Nineteenth Corps. The field of their action while in Louisiana was far away, and, until the fall of Port Hudson, was cut off from the North except by the sea. The public attention was absorbed by the operations in the states along the border, and even their great victory at Port Hudson was eclipsed and looked upon as a consequence of the fall of Vicksburg. But they did a great deal of hard fighting, and made hundreds of miles of hard marching in a climate to which the men were not accustomed.

Goodell had entered the regiment as second lieutenant, but he had acted in many capacities. He had officiated as first lieutenant in his own and other companies, had often discharged the function of captain, and had acted as adjutant of the regiment. He was promoted to first lieutenant on the 14th of April, and became aide-de-camp on the staff of Colonel Bissell, commanding the 3d Brigade of the 4th Division, on the 8th of July.

He said little about his army experience after he came home, and seldom spoke of it even to his own family. Occasionally some incident would bring out a scrap of his experience. The following will serve to illustrate the stories he sometimes told. Some years ago, but long after the War, at an educational convention at Baton Rouge, his next neighbor at the banquet said to him, "This country is new to you?" — "No," said Goodell, "I served in Louisiana in '62 and '63, and was at the siege of Port Hudson." The gentleman said that he was taken prisoner there by a commissioned officer. Goodell asked if he remembered the officer's name and regiment, to which the gentleman replied: "Yes, it was Lieutenant Goodell of the 25th Connecticut." — "Then," said Goodell, "You are Captain —." "How do you know that?" asked the gentleman with some surprise. "Because I am the Lieutenant Goodell you speak of." Their last meeting was undoubtedly much more pleasant, especially to the Confederate gentleman, than their first.

There is every evidence that he discharged his duty as a soldier with ability and with a high sense of loyalty to the cause he loved and to his superior officers. He never was absent from his company for twelve consecutive hours, except on duty, from the time the regiment was mustered into the service until it was mustered out. His idea of a soldier, of his calling, the principles he ought to hold, the duties he ought to be ready to discharge, and the sentiment which should animate his conduct on all occasions, is stated, perhaps unconsciously, in his address at the memorial services of Captain Walter Mason Dickinson, which is given in this volume.

Of him personally one of his fellow officers of higher rank, Major Thomas McManus, writes: "His whole life, his whole conduct during our army experience, was so consistent and admirable that I am actually puzzled to dissect from it any special detail to memorize as an incident or saying even. You know he never was oracular. He never posed. He simply did everything perfectly and easily. I actually think that, if he tumbled off a roof, he would have done it gracefully. He never once complained, however great the hardship, on the march or in action. He never adversely criticised another officer, or harshly reproved a private, or murmured at a privation. He was on duty where he belonged, all the while. Nothing spasmodic in his service, but when an emergency did arise at Port Hudson, that called for volunteers for the Forlorn Hope, he was with the very first to offer himself for a service that promised nothing but death as a result. Thank God, the service after all was not required!

"He was everything good that could be desired in a soldier and he was so all the time. You may portray in him every admirable quality that man can possess and you may rival Chrysostom himself in eloquence, yet you cannot exaggerate, hardly equal his deserts."

After the experience in the army he took a year to recuperate. He did not care to study any of the professions, and it is safe to say that then he had no idea what his work in the world would be; but he did not merely vegetate, nor was he "waiting for something to turn up." Hard work was mingled with recreation. A good deal of time is given to the study of German, or as he puts it, "studying high Dutch, low Dutch and German, three variations of the

Teutonic"; and he does not find the mixture palatable. He dips into literature, both grave and gay; reads Charles Lamb's works with great delight; Renan's "Life of Jesus," — finds the author "an arrant doubter," and wants a good review of him. Ticknor's "Life of Prescott" he thinks "capital." "That's a curious thought," he writes, "that Prescott expresses in a letter to Ticknor on the greater difficulty of representing happiness than misery, and the faultiness of the Scripture in that respect, offering nothing but singing and dancing as the happiness of Heaven, an idea which he says to many would be positively disagreeable. I can't help laughing every time I think of it, and yet the criticism is just." He reads Kirk's "Charles the Bold" and finds it as fascinating as a novel, and is interested in the articles in the "North American Review," especially in the one on McClellan; thinks "it uses him up most completely as a politician and a soldier." The article was by James Russell Lowell.

To turn to the other side of his nature — he keeps in close touch with his classmates, especially with those in the army. He hears that one of them (Captain Rufus P. Lincoln, of the 37th Massachusetts, afterwards a distinguished surgeon in New York) had been wounded, and writes: "Those boys! I am thinking of them all the time. May they come out safe from these horrid battles! I am as uneasy as a fish out of water here at home, lying round like an old cow at my ease and all these brave fellows periling their lives." He paid flying visits to those of his class who were near him, and writes of one after another, "the same good fellow as ever." He calls on his "beloved D.D." at Cambridge, and informs him by letter that he "found the Theologi-cuss out."

In the fall of 1864, he received and accepted an invitation to return to his old preparatory school, Williston Seminary, Easthampton, as teacher of modern languages and instructor in gymnastics. For this work he was well equipped, and had time to devote to favorite studies, for he was beginning to have something like a passion for books.

While teaching at Easthampton he was associated with such men as General Francis A. Walker, M. F. Dickinson, Charles M. Lamson, Judson Smith, and Charles H. Parkhurst. It was indeed a brilliant and inspiring corps of teachers, such as any institution has a right to be proud of. Goodell seems oftener than occasionally to have disturbed the gravity and decorum of the faculty meetings by his remarks, although Dr. Henshaw, the principal, did not always perceive the suggestiveness of Goodell's suggestions. There was once a proposition made to appoint some member of the Faculty to do some particular duty, and Goodell said, with that peculiar innocence of which he was consummate master: "Dr. Henshaw, if you want a man who possesses both the *suaviter in modo* and the *fortiter in re*, I would suggest the name of ——"

III

EDUCATOR

DURING the last decade of the eighteenth century the attention of many thoughtful and far-seeing men was directed to creating a more intelligent culture of the soil. This resulted in the formation of the Massachusetts Society for the Promotion of Agriculture, in 1796. Through the influence of this organization, societies of a similar purpose were organized in the various counties of the Commonwealth, and cattle-shows and horse-shows became a feature of the industrial life of the people. Public-spirited and wealthy men offered prizes for the best products of the farm, and subscribed money to collect and diffuse information on matters pertaining to agriculture.

The printing-press was called into requisition, and on the 2nd of August, 1818, "The American Farmer" was published at Baltimore; three years later came "The Plough Boy" (spelled Plow'Boy), published at Albany; the following year "The New England Farmer" appeared in Boston; and soon papers devoted to this subject appeared in many localities. As the nineteenth century advanced men began to talk of schools of agriculture. Prominent educators, like Edward Hitchcock of Amherst, a man of great practical wisdom, advocated the teaching of this great branch of industry in academies and colleges, and as early as 1843 the Trustees of Amherst College appointed Charles U. Shepard, Professor of Agricultural Chemistry and Mineralogy.

The governors of states recommended to the legislatures to take such action as would advance this great utility. Our presidents have recommended the subject to the consideration of Congress. Washington, who, whatever he was besides, was a farmer by nature, took a deep interest in this subject, and in his last annual message recommended to Congress that appropriations should be made, to encourage an interest in it. President Jefferson in his first inaugural, when enumerating the objects of government, puts the encouragement of agriculture among them. But so negligent had Congress been in fostering the interests of this great phase of the national life, that President Lincoln, in his first annual message December 3, 1861, said that "Agriculture, confessedly the largest interest of the nation, has not a department, nor even a bureau, but a clerkship only, assigned to it in the government. While I make no suggestions as to details, I venture the opinion that an agricultural and statistical bureau might profitably be organized." In pursuance of this suggestion Congress passed an act May 4, 1862, creating a Bureau of Agriculture. The President immediately set about organizing it and refers to it in all his annual messages; and in the very last one he speaks of it as "peculiarly the people's department, in which they feel more directly concerned than in any other. I commend it to the continued attention and fostering care of Congress."

The next step in the national recognition of the importance of agriculture was an act of Congress, February 11, 1889, making the bureau a department, and the commissioner a secretary, with a seat in the President's cabinet.

While these steps were being taken by the national

government, thoughtful and progressive men of high standing and character were urging with eloquent earnestness that education in agriculture was as important as education in the so-called liberal professions. But as Walter Bagehot has said, "One of the greatest pains to human nature is the pain of a new idea. It is, as common people say, 'so upsetting, it makes you think that, after all, your favorite notions may be wrong, your firmest beliefs unfounded.'"¹ But the whole subject was put in a new light by the Hon. Justin S. Morrill, then a representative in Congress from Vermont, himself a farmer's boy, then a merchant, and afterwards a farmer. He brought in, December 14, 1857, a bill devoting large areas of the public lands to the states which should within a given time establish colleges for the benefit of agriculture and the mechanic arts. The bill passed the House by a vote of 105 to 100. Some thirteen months afterward, on February 7, 1859, it passed the Senate by a vote of 25 to 22. President Buchanan returned it to the House with a long veto message, the sum and substance of which was stated in the first sentence: "I deem it to be both inexpedient and unconstitutional."

The fact that such a bill had passed both houses of Congress gave new inspiration to the friends of the movement, and it is said that in the next contest for the presidency two of the leading candidates, Mr. Lincoln and Judge Douglas, were pledged to favor the bill. The people now began to talk of agricultural colleges, and two of the states went forward and established them.

Mr. Morrill, on December 13, 1861, again presented his bill. It passed both houses, and on July 2, 1862, received

¹ *Physics and Politics*, 163.

the sanction of President Lincoln and became a law. This bill, known as the Morrill Act, had a tremendous influence upon agricultural education. Mr. Morrill lived to see institutions of this kind established and sustained by this act in every state of the Union.

This law was strengthened by the "Hatch Bill" approved by President Cleveland, March 2, 1886, creating experiment stations in connection with the land-grant colleges; and four years later, Senator Morrill brought in a bill, approved by President Harrison, August 30, 1890, for a more complete endowment of the land-grant colleges. All the bills for the advancement of industrial education were championed by the practical wisdom and consummate tact of Mr. Morrill; and he will stand at the bar of history as one of our greatest national benefactors.

A gentleman was once introduced to Mr. Morrill as a friend of President Goodell, and the Senator, taking his hand in both his own, said, with an earnestness not to be mistaken, "I congratulate you sir, most heartily, on having such a man for your friend." When George F. Hoar published his "Autobiography of Seventy Years," the attention of President Goodell was called to the chapter on some of the Senators with whom Mr. Hoar had served. After reading it he wrote: "All this is very beautiful, but as I went on from one splendid characterization to another, I began to fear that he would get exhausted and break down before he got to Senator Morrill. But he rose to the occasion. It was the last, and fine as the others were, this was the best of all. It was beautiful beyond any words of mine to describe, and it is as true as it is beautiful. It is a mystery to me how a man could write such a chapter as that."

President Goodell had occasion often to consult with Senator Morrill, but unfortunately little that passed between them in writing has as yet been discovered.

The story is too long to be told here of the many suggestions and plans which engaged the attention and occupied the minds of men, which eventually led up to the establishment of the Massachusetts Agricultural College. It will be sufficient to say that in his annual message to the General Court, January 6, 1865, Governor Andrew announced that the Massachusetts Agricultural College had been located at Amherst, and added: "I beg to commend the subject of agricultural education, and the patronage of this institution of the State to your liberality. I should deeply regret to see an institution which bears the name of Massachusetts and will be held to be representative of the Commonwealth, especially of the highest aspirations of her yeomanry, allowed, for want of generous support, to degenerate into a mere industrial school."

In his concluding remarks on this subject his Excellency states the spirit in which the Commonwealth should pursue the work she has begun; and his words so completely describe the feelings which animated President Goodell in his long service at the institution then inaugurated that they may be quoted as eminently applicable to him and his work: —

"When the Commonwealth touches such a subject, she ought to feel herself to be like the priestess, advancing to handle the sacred symbols, and on holy ground. She should remember her own dignity, the immortality always possible to states, the error of which she is the promoter hereafter, if she commits herself to error now, the boundless

scope of her good influence, the millions of men on whom her influence may be made to tell through all the amplitudes of space and time. When I contemplate such a subject, the reason is content to yield to the imagination. I remember the photograph, the magnetic telegraph, the discovery of vaccination, the painless operations of surgery, — the triumphs, the miracles of genius. I seem to see, for the Earth herself and her cultivators, the coming time, when husbandry, attended by all the ministries of science and art, shall illumine and rejuvenate her countenance, and recreate our life below.”

Notwithstanding the magnificent appeal of his Excellency the Governor, the inauguration of the new college dragged slowly on until the election of William Smith Clark to the presidency in 1867. Clark was by nature and culture a man of science. He had for several years been professor of chemistry and had also occupied the chairs of botany and zoölogy in Amherst College. He had made a brilliant record in the Civil War, as Colonel of the Twenty-First Massachusetts Volunteers, and had had some experience in political life. He brought to his new duties fine abilities as an organizer and administrator, was possessed by an enthusiasm, founded on moral convictions, that a great work could be done, of lasting benefit to the people, and that he could help do it. He wielded a graceful pen, possessed admirable powers of persuasion and a knowledge of men which came both by instinct and a large experience of the world. He was emphatically a man of affairs and knew how to meet men.

The unexpected is among the certainties in the lives of men. “No man,” said Oliver Cromwell, to the agents

of Henrietta Maria, who were sounding him as to his ambitions, "no man ever climbs so high as the man who does not know where he is going." We left Goodell quietly teaching at Williston Seminary, with perhaps no idea of any change in his position in life, at least for the present, and certainly no idea of the change that was about to come. But President Clark's eye was upon him. At an Alumni dinner of the Agricultural College in 1886, while he was acting as president, he was called upon to speak of President Clark, who had recently died, and in his remarks he indulged in a bit of personal reminiscence. He said: "It was in the summer of 1867 that I received a brief note from him [Clark] asking me to come to Amherst and see him. No building had as yet been erected, and the several farms of which the college property was composed had not yet been thrown into one. Leading me out into the fields, very near where South College now stands, he unfolded his plans, and turning to me with his hand on my shoulder said: 'There is a great and glorious work to be done. Will you come and help?' And what could I do with that eye looking straight into mine and that hand resting on my shoulder, but say, 'I will'?"

To be in at the beginning of a new movement, or a new departure from the beaten track of common experience, which proves successful, is a matter of congratulation when success has been attained. But it requires more courage than men usually get credit for, to start with a movement that is in advance of the common thought, when there is liability that one may be buried in the ruins of the undertaking. The new college had not only to face ignorant prejudice, but it had the more difficult task of vindicating

its right to be, and this was no easy matter, for the results of its work might not be manifest for years to come.

The Faculty of those early days was not a formidable body in numbers. It consisted of the President, William S. Clark, Professor E. S. Snell, of Amherst College, teaching mathematics, Henry H. Goodell, Professor of Modern Languages and English Literature, and the farmer, Levi Stockbridge, who gave instruction in agriculture. This was indeed rather a small crowd to face an indifferent and sometimes hostile world; but indifference was to them far more dangerous than hostility.

Goodell's department was very congenial to his feelings and tastes, especially English Literature. But during its early years the College, although a state institution, was handicapped in many ways. It was poor, and as a natural consequence its appliances were insufficient and the corps of teachers too small to meet the demands of even a small number of pupils; so that at the beginning some important branches of study were not provided with any instructors. Goodell seems to have been called upon to fill the gap. It seems almost impossible for a man to adjust himself to so many different relations. "He was instructor in military tactics and gymnastics from 1867 to 1869, lecturer on entomology in 1869, instructor in zoölogy from 1869 to 1871, in anatomy and physiology from 1869 to 1871 and again from 1882 to 1883, instructor in rhetoric and English language from 1871 to 1873 and from 1883 to 1885, and in history from 1872 to 1883; and in addition to this he was secretary of the Faculty for four years, and librarian from 1885 to 1899."

Had all these branches of instruction been in accord

with his tastes, his work would have been very confining and laborious. But his tastes were literary rather than scientific. It is doubtful whether he really enjoyed any of the sciences, with the single exception of botany; but the work he did enabled him to grasp something more than the rudiments of the sciences as taught in the ordinary college course, and to understand the interdependence of the sciences and their federal relations to each other. This was of great importance to him in after life. It was a hard school, but no other could have better prepared him for his future work. It was with sufficient cause that Amherst College conferred upon him the honorary degree of Doctor of Laws in 1891.

While discharging these various duties he acted as secretary of his own class (the Class of '62 in Amherst College), and published in 1872 a little booklet giving an account of all who had ever been connected with the class, telling how far each had advanced in the ten years since graduation in professional, commercial and matrimonial life. It was a tedious bit of work. His own description of the booklet is correct so far as the history of each one is concerned. "I have brought you up from the 'mewling infant in the nurse's arms' to 'the lover sighing like a furnace, with a woful ballad to his mistress's eyebrow.'" But while his story of each one was told with fidelity and accuracy, his way of telling it was characteristic, both of himself and of the person of whom he wrote. In writing of one who had a genius for getting conditioned at the end of every term in Latin and Greek, he says: "He studied divinity, wrestling with the Hebrew, and prevailing mightily with the Greek." He gave the statistics of the professions

and occupations of his classmates and over every list put a motto of his own choice. Heading the list of lawyers we have:—

Here lies a lawyer, rude and bold:

He by his trade subsisted.

Reader, think! How many lies the rascal must have told!

Over the list of bachelors, and he was then among them, he put this bit of good advice:—

Thanks, my good friends for your advice,

But marriage is a thing so nice,

That he who means to take a wife

Had better think on 't all his life.

Goodell acted not only as secretary of the class, but as treasurer, and was actively instrumental in raising money to establish a Class scholarship at Amherst College. It was a fund of two thousand dollars, the income of which was to aid indigent students. It was called the Henry Gridley Scholarship of the Class of '62, in Memory of a classmate, Lieutenant Henry Gridley of the 150th Regiment of New York Volunteers, who fell on June 22, 1864, in an engagement which General Sherman calls the "affair of the Kolb House, where the enemy received a terrible repulse." ¹

Colonel Ketchum in his report of the battle says: "First Lieutenant Henry Gridley, a valuable officer, was killed in this engagement." ² The scene of this battle was some three or four miles from Marietta, Georgia.

After the death of President Goodell his classmates established another scholarship of equal value, called the Henry Hill Goodell Scholarship of the Class of '62.

¹ W. R., 38, P. 11, 68.

² W. R., 38, P. 11, 79.

It is not a little singular that after all the contempt with which the ladies of the Crescent City treated him in '63, he should have won the hand and the heart of Helen E., daughter of John Stanton, of New Orleans. They were married December 10, 1873. This event was quickly followed by the establishment of a home. He was very happy in his home, which stood on rising ground overlooking the valley of the Connecticut. The outlook was delightful. The varied scenes of meadows and fields, of hills and the mountains beyond, had a restful influence upon his spirits. He had a sensitive ear for the sounds of Nature. He loved to listen to the gossiping of the wind with the leaves on the trees about his house, and he took great pleasure in the roar of the advancing storm, as it came up from the west, or down from the north. He would call attention to those moments of quiet, when Nature seemed to be listening, and he enjoyed the solemn stillness. Indeed, he had an eye to see, an ear to hear and a spirit to feel, "what he could n't near express but could not all conceal." "It is a delightful rest," he used to say, "to look on that landscape." The spot he chose for his home illustrates one side of his character.

Their two children, both boys, were a great delight to him, and he always attributed their good conduct to the influence of their mother, who, he said, understood the art of inculcating good principles without making them disagreeable by tedious lectures; but he would add with a smile, that he was sometimes afraid that the boys were not always getting "the sincere milk of the Word." He lived to see one of them started in the world. Here is the introduction his father gave him as he went out to try his hand in the affairs of real life. It was written to a college classmate, a

life-long friend, an eminent lawyer practicing in New York City.

AMHERST, MASS., *October 7, 1898.*

COLONEL MASON W. TYLER,
Plainfield, N. J.

DEAR MASON, — A boy — family name Goodell, Christian name John — accompanies this letter. Just out of the Troy Polytechnic, but without experience. He is seeking a place into which he can thrust his lever and turn the world over. Civil-engineering his profession, railroading his delight. He is seeking for some railroad magnate who will adopt an orphan, side-track him in some fat office where he can try his little lever. Do you know any such people to introduce him to? If you do, help him, and believe me

Yours gratefully,

H. H. GOODELL.

Although Goodell had little, if any, ambition to figure in political life, he was faithful in the discharge of his civic duties. He usually attended the caucus of his party, especially in his early days, and while he never sought office, he was always ready to serve on committees where he thought he could be of any assistance. But at the Republican caucus held October 27, 1884, things were in some confusion, to say the least, and he was nominated to represent the then Fourth Hampshire District in the General Court, not as "a dark horse," but as a man whose personal popularity was likely to unite conflicting interests and secure victory for the party at the polls. He declined the honor and refused positively to allow his name to be put in nomi-

nation against a gentleman who, he said, "had been a father to him." But the caucus insisted upon its action, and before election day matters were so arranged that he accepted the nomination and of the 793 votes cast he received 517, or a majority of 241. It was fortunate that he was persuaded to withdraw his objections, for he was able to be of vastly greater service to the College in the hall of representatives at Boston, than he would have been in the recitation room at Amherst.

The Legislature of 1885 was a very able body of men. Several of his associates attained eminence in political life and many were afterwards distinguished as men of affairs. Here he made the acquaintance of men interested in industrial education, several of whom afterwards became trustees of the College. He served on the standing committee on education. This session of the legislature was really the turning point in the interests of the College. It has been said by one who had ample opportunity to know whereof he spoke, Hon. William R. Session, who was then serving as Senator and who was for many years Secretary of the Board of Agriculture and a trustee of the College: "I am convinced that the favorable change in the temper of the Massachusetts legislature toward the College, which set in at that time and has continued ever since, was very largely due to President Goodell's influence on the representative men from all over the state, with whom he was brought in contact during that season's service at the State House."

During the winter South College was destroyed by fire, and the friends of the College were very much depressed; but Goodell was equal to the exigencies of the case. He secured the necessary appropriations not only to rebuild and

refit, but also to make improvements and repairs, amounting in all to fifty thousand dollars. This was a large sum for those times and a great triumph when we consider the feeling against the College, which was widespread and quite strong.

From that time Professor Goodell began to attract the attention of men interested in industrial education. When the presidency of the College became vacant, one of the trustees, on his way to Amherst, happened to meet at Palmer the Hon. Levi Stockbridge, a veteran agriculturist and experimenter, and asked him whom they should elect as President? Mr. Stockbridge replied without a moment's hesitation: "If you choose Professor Goodell you will make no mistake."

On the death of President Chadbourne in 1883, Professor Goodell was chosen acting president, and served in that capacity from February to September of that year. On the retirement of President Greenough, three years later, in 1886, he was elected president. He was very reluctant to accept the position, but finally yielded to the solicitation of his friends and the friends of the College; but he looked upon it as a temporary appointment and expected to be relieved at the end of the year, if not before. He had a very modest estimate of his own abilities and his success was always a mystery to him. But his resources were greater than he knew and were at once recognized by others. His health was not firm, and after serving for about nine months he sent the following letter to the trustees: —

AMHERST, *April 9, 1887.*

TO THE HONORABLE BOARD OF TRUSTEES OF THE MASS.
AGR'L COLLEGE:—

GENTLEMEN, — I hereby tender my resignation of the Presidency of the Mass. Agr'l College, to take effect July 1st, 1887. When you did me the honor last year to elect me to that position, I hesitated long before accepting it, feeling that my health was inadequate to the responsibilities and care attending it, and it was only at the earnest solicitation of my friends that I yielded. But I feel that my strength will not permit of this continued drain upon it, and that it is merely a question of time when I shall be compelled to lay down these duties. I therefore tender my resignation now, before the time comes when I can neither be a credit to yourselves nor to myself. Thanking you for the consideration and support I have rec'd at your hands, I am,

Very faithfully yours,

HENRY H. GOODELL.

The letter was read at a meeting of the trustees held June 22, 1887; and they immediately referred the whole matter to the Committee on the Course of Study and Faculty, to confer with the President and report at an adjourned meeting of the board to be called together at the option of the committee. The following Resolutions were then presented by Mr. Root and unanimously adopted:—

“*Whereas*, we the Trustees of the Massachusetts Agricultural College one year ago unanimously elected Prof. Henry H. Goodell as President of the College; and, *Whereas*, President Goodell has during the year just closed performed

the many and arduous duties as the chief executive of the Institution with rare ability and eminent success, and to the entire satisfaction and hearty approval of this Board, and we believe of the entire Faculty, Alumni, students of the College, and the public at large; and, *Whereas*, it is with the most sincere regret that we have received his resignation as President of the College, expressing a desire to be relieved from the Presidency of the Institution, therefore,

RESOLVED, That we as trustees most earnestly request that President Goodell withdraw his resignation and continue to act as President of the College, in which position he has done so much to bring it into complete, successful, harmonious, and effective working condition during the past year; that we pledge to him our hearty and earnest support in the future as in the past: that we pledge ourselves that we will do all that is possible to release him from some of the many duties that now rest upon him, trusting he will consent to withdraw his resignation.

At a meeting of the Board held June 19, 1888, the Committee on Course of Study and Faculty reported that President Goodell had consented to withdraw his resignation upon the following terms: That he be relieved from the duty of instruction in declamation and composition without increase of work or decrease of compensation on the part of any other member of the Faculty. This proposition was agreed to and President Goodell withdrew his resignation.

Even with this amelioration of his labors the position was an exceedingly trying one. The College was as yet an experiment and had to prove its right to be. But the presi-

dent was equal to the emergencies as they came. He possessed in a remarkable degree that important factor in dealing with men called "tact." There was little of the dogmatic in his nature, although he had very decided opinions of his own and he valued them. He had great reverence for the past, for an institution, a custom, or an opinion

That carries age so nobly in its looks;

but with all he was progressive. The windows of his mind were opened not only toward Jerusalem but toward all points of the compass. He seems to have followed, perhaps unconsciously, Lord Bacon's advice: "Men in their innovations should follow the example of time itself, which innovateth greatly, but quietly and by degrees scarce to be perceived."

The new president understood the situation perfectly. The College was in a state whose leading industry was manufacturing and whose stingy soil could not compete with the plains of the West. The first enthusiasm of some of its early friends had subsided. The air was pervaded with the chill of disappointment and the proposition was made to give the College away. He knew perfectly well that it would be a long struggle to excite any enthusiasm in regard to it and to make the people feel its importance to one of the industries of the state. For long years he worked with exuberant cheerfulness and unabated enthusiasm, facing discouragements of every description. Proper buildings and apparatus were wanted, his teachers were overworked and underpaid, new problems were presenting themselves for which he was not prepared, the people were disappointed because they did not see immediate results and complained

that the College educated men away from the farm and that comparatively few availed themselves of the opportunity it afforded to acquire an education. But he so managed affairs as to have the support and encouragement of an able and wise board of trustees, who had confidence in him and faith in the mission of the College, and he was backed by a corps of teachers after his own heart. But it was not until 1896, twelve years after he assumed the presidency that he could report to the Governor and Council that, —

“Reviewing the past, we cannot but feel that the stage of experiment is over and we enter upon this the first year of its fourth decade with quickened hope that from a broader foundation the College will continue to rise and fulfil its mission of providing that ‘liberal and practical education that shall fit the industrial classes for the several pursuits and professions of life.’”

President Goodell believed with all the energy of his intellectual and moral nature that behind the farmer should be the educated man. Hence he was anxious to maintain a high standard of scholarship. But the class from which recruits are drawn for our agricultural colleges, as a general rule, is not the same as that which recruits our classical schools. A season of stringency in the money-market makes no perceptible difference in the number of students at our great academic institutions, but the case is very different with the agricultural colleges. Their ranks are recruited from families which often have little, if any, reserve capital to fall back upon, and in times of stringency are compelled to retain their sons at home, or recall them to join the army of bread-winners. This want of reserve capital may account in part for the neglect of early training com-

plained of by President Goodell in one of his reports of the number of young men who had presented themselves but failed to pass the required examination. He remarks that "the ignorance displayed of the very rudiments of grammar and arithmetic would almost lead to the conclusion that the grammar school had been suppressed throughout the state."

He was ever anxious to make the College useful to the people, and inaugurated, as its means would permit, courses of study for those who wished to do advanced work, and also courses of instruction, during the three winter months, in practical farming for those who could not take the full course; and for these courses no examination was required. The growing interest of women in agriculture and floriculture led to courses for their benefit.

The work of the College was continually increasing. Experimental work of great importance had been carried on ever since its establishment, and in 1882 the Massachusetts Agricultural Experiment Station was organized, with Dr. C. A. Goessmann as director. The Hatch Experiment Station, under the direction of President Goodell, was organized in accordance with an act of Congress in 1888, as the Experiment Department of the Massachusetts Agricultural College. The two stations maintained a separate existence until 1895, when they were united under the name of the Hatch Experiment Station of the Massachusetts Agricultural College, under the directorship of President H. H. Goodell.

The first duty of the new president was to let the people know what the College was for, and how it would affect them. This involved an immense amount of work, the pre-

paration of addresses, traveling to every corner of the Commonwealth, and appearing before committees of the legislature. In his addresses on agricultural education he had an apt text which he used to illustrate: "How can he get wisdom that holdeth the plow and glorieth in the goad, that driveth oxen and is occupied in their labors, and whose talk is of bullocks?"¹ — and in answering the question he adjusted his address to the character of his audience. Many of these popular addresses in the early days of his presidency are out of tune with the spirit of to-day, and would excite a smile, not on account of the manner of handling the subjects, but on account of the subjects themselves. They had to do with what would seem to us the petty and trivial, the creatures of a persistent hostility or ignorant criticism. It seems impossible to-day that such objections should be raised against such an institution; but they had to be met and the work had to be done over and over again for years. It was a pleasure to him to meet the people and answer their honest questions, but men soon found that it was not safe to trifle with him. Pages might be filled with smart questions intended to put him and his cause in a ludicrous position; but his ready wit and good-natured replies were sure to turn the tables on the questioner and leave him in a very undesirable situation.

A few of the graduates of the College had entered the ministry, and the chairman of one of the committees of the Massachusetts legislature before which he had to appear, said to him: "I notice you have some ministers among your graduates. Will you please tell me what the connection is between agriculture and theology?"

¹ *Wisdom of Jesus the Son of Sirach: xxxviii, 25.*

When the laugh had subsided, in which he undoubtedly joined, President Goodell replied: "I have just received a letter from one of these ministers in which he says, 'I know of no more perfect illustration of original sin than the pusley I used to dig on the college farm.'"

Of course the relationship between agriculture and theology was settled in a roar of laughter at the expense of the chairman.

President Goodell was patient in dealing with the limitations of men, but persistent in meeting their objections. It was by pressure and not by blows that he carried his point and made his mark upon his hearers. It was not until after years of discussion that he could feel that the College had passed its experimental stage. It was a long and weary way, but he was bravely supported by the friends of the best interests of the people and of civilization itself. Too little credit is given to men who stand for an institution devoted to the benefit of those who do not wish to be benefited in the only way in which their situation can be permanently improved.

His annual reports are a striking illustration of the ever-widening scope of the work he was doing. In the first report he describes briefly the actual state of things, the improvements that have been made, and the pressing wants of the College. He pleads for a labor fund out of which indigent students could be paid for work done. "It would be," he says, "one of the noblest of charities. It would not sacrifice the students' feeling of self-respect, for they would be giving an honest equivalent for money received." He calls attention to the changes in the course of studies, "to carry out more fully the intention of the original bill, to give a

thorough practical knowledge of agriculture and horticulture and at the same time liberally educate the man." More time is to be devoted "to the study of one's mother tongue"; and in this connection he adds: "Too much value cannot be placed upon the Library. It is now only the nucleus of what it ought to be, and a thousand dollars should be expended at once in furnishing the latest scientific works in the several departments."

In his next report we have a new feature. A list is given of some thirty lectures by experts, not connected with the College, on various subjects, ranging from the nebular hypothesis and evolution to the various breeds of cattle and the culture of bees. The labor fund is again presented, with such force and cogency of reasoning that it did not escape the attention of the legislators. The culture of "one's mother tongue" is again emphasized: "A knowledge of English composition, the power of adequately expressing thought in words, lies at the base of all education." Another appeal is made for the library: "'Gyf to ye foke ye beste and muche of it and they will stomak no thing else,' is as true now as when penned well nigh two hundred and fifty years ago."

These annual reports are a striking illustration of the practical nature of the man and his growing breadth of view. With one or two exceptions they were accepted and adopted, without change, as the report of the Board of Trustees.

This may be a fit place to introduce some account of President Goodell's ideas of the functions of an agricultural college. It will be remembered that the mechanic arts, as provided for in the Morrill Act, were taught in the Massa-

chusetts Institute of Technology, which shared in the funds allowed the Commonwealth by the national government. By this arrangement the College was left to teach what pertains to agriculture. At the tenth annual convention of the Association of American Agricultural and Experiment Stations, held in the City of Washington, November 12, 1896, four college presidents from different parts of the country were appointed to discuss the question, "What should be taught in our Colleges of Agriculture?" In these papers the individuality of the writers stands out clearly, and in none more prominently than in the paper presented by the representative from Massachusetts. President Goodell presented the subject as it had been developed at Amherst, and the reader is referred to his address printed in this volume. It is to be noticed that, in his schedule of studies, he made English an important factor in fitting a man to be a farmer. Some of the speakers dismissed the subject at the end of the first year, while he carried it through the whole course. His reason for this is thus cogently stated: "The student's mind being brought in contact with the great minds that have adorned the pages of American and English history, his mind, his powers are quickened and developed thereby, his mental horizon is enlarged, and thus a most important educational advantage is secured."

Dr. E. W. Allen, Assistant Director in the Office of Experiment Stations at Washington, and a graduate of the Massachusetts Agricultural College, in a private letter, which he has kindly allowed to be published, has summed up the whole subject of President Goodell's ideas of agricultural education, in a most admirable way, as will be seen

by comparing the letter with the address above referred to. Dr. Allen writes: —

“Among President Goodell’s services to the Massachusetts Agricultural College it seems to me none have been more far-reaching than the high educational ideals which he contended for. He never forgot that the institution was a college, and not a farm school; that its prime object was the education of men for real life — not merely the giving of superficial training, which would make its graduates simply skilled technicians. He contended that the college must teach facts and principles as well as things, and that the true agricultural education rescues man from the rule-of-thumb only as it gives him an intellectual grasp of his subject and the ability to use knowledge with discrimination.

“To him more than to any other single man, it seems to me, is due the high conception of the educational aims of the College which have prevailed almost from the first, and which have differentiated it quite sharply from most of the agricultural colleges. To understand the courage which this required it is necessary to realize the wave of enthusiasm which has swept over the country for the more superficial kinds of instruction at these colleges. This superficial instruction, which dealt with things mainly rather than with principles, and gave a minimum of attention to the general educational features, was spectacular and attractive to the uneducated man, and from its popularity rather than its pedagogic value it came to be adopted very widely. The Massachusetts College stood almost alone in its persistency in holding to some of the old ideas of education, and the wisdom of its course is every year becoming more evident.

“Aside from this very potent influence in holding the college to a high education standard, it is difficult to enumerate his special services to the institution, they were so many and so varied. I think he more than any other man contributed to an *esprit de corps* among the students and the alumni. For many years he gave much time to keeping in contact with the graduates, purely as a voluntary undertaking, and he made many of them feel what they really owed to the college. The vast amount of work which he put upon the college library resulted in the building up of the best selected and arranged agricultural library in this country, which I think is only surpassed at the present time by the Library of the National Department of Agriculture. It is his most conspicuous monument.

“In his plans for organization and development President Goodell built symmetrically, aiming to develop the various departments uniformly, rather than one or two departments at the expense of all others. He was exceedingly just and broad in his sympathies with all departments of the institution, believing that each had its place and that together they made a strong, symmetrical whole. His policy seemed to be to give quite large liberty to the heads of departments in order that they might have the inspiration of the field, and to hold them accountable for the results. He stamped upon all the necessity for a clear and definite plan, and for thoroughness in all that was undertaken.”

After the establishment in 1886 of the Hatch Experiment Stations in connection with the land-grant colleges, it became at once apparent to the leaders of agricultural education, that coöperative action was necessary to secure the best results, not only in work but in legislation. It was

felt that if they could go to Congress as a body, they would have more influence than they would if colleges presented their cases singly. To this end an association of the executive officers of these institutions was formed, called the American Association of Agricultural Colleges and Experiment Stations. With this very important movement President Goodell was intimately connected from the beginning. The confidence reposed in his judgment and abilities is best illustrated by the positions of responsibility assigned to him by his associates. Here it will be sufficient to cite the testimony of two of his fellow workers. The editor of the Experiment Station Record, in the June number for 1905, gives the following account of his relations with the association: —

“With the organization of the agricultural colleges and experiment stations of the country into an association, President Goodell became a conspicuous figure in the national association, and was prominently identified with all the movements supported by it during the first fifteen years of its existence. He was a member of its executive committee from 1888 to 1902, and for the last eight years of that period was chairman. As a member of that committee he had a prominent part in securing the legislation leading to the establishment of agricultural experiment stations in every state and territory, and the further endowment of the land-grant colleges.

“As chairman of the executive committee he devoted much time to the business of the association and to looking after the interests of the institutions represented in it. He was conservative in his action, and his management helped to economize the time of the association and to make its

meetings effective. He urged a strict interpretation of the Morrill and Hatch acts, and a careful use of the privileges conferred by them. He pointed out the dangers to the college and station funds of legislation which reduced the income from the sale of public lands: and his committee was instrumental in securing the passage in 1900 of a clause providing that, if at any time the proceeds from the sale of public lands should be insufficient to meet the annual appropriations for the colleges and experiment stations, the same should be paid from any funds in the Treasury, thus placing these funds on a sure foundation.

“President Goodell was President of the Association of American Agricultural Colleges and Experiment Stations in 1891, being the third to hold that office. His address before the convention of that year dealt with some of the achievements of the agricultural experimentation and the guiding principles underlying it. It led up to an appreciation of the work of the Rothamsted Experiment Station, concluding with the presentation of Dr. R. Warington, who came as the first representative of the English station to deliver a course of lectures under the provisions of the Lawes trust. Two years later, when Sir Henry Gilbert came to this country on a similar mission, President Goodell arranged to have these classic lectures delivered under the auspices of the Massachusetts Agricultural College, the pressure of other business making it impracticable for more than an introduction to them to be delivered at the meeting of the association.”

In an address delivered at the request of the association, President W. E. Stone of Purdue University, Indiana, gives the following account of his work: —

"In the work of this association, and in the establishment of the foundations of the land-grant colleges and experiment stations, President Goodell had an important and almost unique part. A full comprehension of this can only be had by those who shared with him these labors. With the passage of the Hatch Act it became apparent that an organization of the executive officers of these institutions was a necessity. The attention of Congress could be secured only by the presentation of matters of national scope in concrete and unified form. The plan of education and research mapped out for the land-grant colleges was too broad, varied and comprehensive, and too vital, to permit of its development without organized direction. It was necessary on more than one occasion to urge upon departments of the government a consideration of conditions which led to fair and beneficial rulings with regard to these institutions. The questions of jurisdiction and of the relations between the separate institutions and governmental departments were, and have ever been, of greatest importance. The heads of these colleges were pushing out into new and unexplored regions, and felt the need of mutual aid and advice. All of these considerations emphasized to Goodell and his colleagues the necessity of an association for mutual aid and protection, as well as for the general advancement of the interests to which these institutions were devoted. In the organization of this association he was a moving spirit, and in its subsequent work always an active participant. He was a member of the executive committee from 1888 to 1902, and during the last eight years of this time was chairman of the same. In this capacity he labored untiringly, not only in the broader duties of the position, but in multitudinous de-

tails which contributed to the success of the organization. One can recall distinctly his methods of preparing and presenting the business of the association in a complete and finished manner, which expedited the routine of its work, even at the cost of apparent officiousness on his part. His rare tact and insight into human nature; his broad outlook upon the field of agricultural education; his wide knowledge of public men, and thorough familiarity with the history of the land-grant college movement, fitted him for the place of leader in the work of the executive committee and enabled him to render inestimable service.

“The attention of Congress and of governmental departments has been favorably moulded by the wisdom and firmness of this committee. The threatening danger to the Federal appropriation for the colleges and experiment stations, through the gradual diversion of the proceeds of the sale of public lands, was foreseen and averted through his efforts and leadership in securing protective legislation in 1900. His conservative and wise but energetic action averted many dangers and laid foundations which will sustain our institutions for a long time to come. That we have passed through this period of development so safely is due to a strong organization and able leaders, among whom Henry Hill Goodell stands conspicuous. To few, if any, of these do the agricultural colleges and experiment stations owe a greater debt than to him.”

President Stone, in the address just quoted, remarks that President Goodell took so important a part in the deliberations of the association as almost to expose him to the suspicion of being officious. At one of the annual meetings in Washington, besides delivering an address, he is reported

to have been on his feet some twenty-five times, not however to make a speech, but to make a brief explanation of the action of the executive committee, to call attention to pending business, or to suggest new business prepared by the committee. It is said that a new member, then present, asked, with perhaps pardonable irreverence, "Who is that little cuss who seems to run the whole business?"

From the nature of the case it is difficult to get a clear idea of the work of the executive committee, but this at least is certain, it must have been very onerous.¹ A single item will throw a little light on the subject. President Goodell in one of his reports incidentally notes the fact that the committee had written 383 letters during the year in the interest of the association. They prepared the business to be submitted, made reports of what they had done, and recommended measures that would be of advantage to the colleges and experiment stations, which often required the accumulation of a good many data and much hard thinking. They also kept a sharp watch on the national legislation. This brought them into close connection with almost every department of the national government, and called upon them to appear before many committees and joint committees of the House and the Senate.

A single illustration will give some idea of their work, at least so far as legislation is concerned. For some years after the passage of the first Morrill Act in 1862, the public lands were a subject of great anxiety to the executive committee,

¹ As an illustration of the nature of the business that came before the executive committee and of the chairman's way of presenting it, the report of the committee to the twelfth convention, 1898, is given in this volume.

for Congress was prone to devote the income accruing from their sale to other purposes than that to which they were devoted by that act, — the cause of agricultural and mechanical education, — and it was foreseen that the revenue from that source would soon be exhausted and that the colleges and experiment stations would be left without the income upon which their usefulness and life depended.

To save the colleges and experiment stations from utter ruin, Senator Morrill presented in 1890 a bill known as the Second Morrill Act, which provided that the annuity to these institutions should be paid from the Treasury of the United States. To secure the passage of such a bill a great variety of opinions and interests had to be reconciled. There is many a pitfall in the way of a bill through Congress. After the friends of this bill thought their work was done and were resting upon their oars, Senator Morrill informed President Goodell of the situation as follows: —

WASHINGTON, D. C., *June 16, 1890.*

MY DEAR SIR, — As you may perhaps have seen, I attempted to get up the College Bill on Saturday last but had to consent to its going over until Thursday next. I find that there are various amendments to be proposed. Alabama wants one to take care of a colored institution established by the state, and I regret to say your Senator Hoar desires to put in some provisions so that he can get in an institution at Worcester, I suppose of some technical or mechanical character, and this I very much regret. I think your institution ought to have the whole of the appropriation as well as all others, for I do not want to raise the question in all the states as to where the addi-

tional endowment should go. It would be well for you to do everything you can.

Yours very truly,

JUSTIN S. MORRILL.

While this bill was pending, another subject came up, of great importance to the land-grant colleges, — the proposition to establish schools of mines and mining. It was a very popular movement. The executive committee of the association at once caused a bill to be drawn to connect these schools with the colleges in such a way “as to secure the most desirable end of maximum advantage at a minimum of expense.” The bill was in charge of Senator Tillman of South Carolina, who was very much interested in it. Everything seemed to be going well for a time, but objection soon came to the front and the Senator wrote to President Goodell on April 26, 1900, as follows: —

DEAR SIR, — I have your letter of April 25th. I have been looking out for a favorable opportunity to call up the bill, but as yet have not seen one. Hale of Maine is opposed and I think will “object,” and Senator Allison of Iowa also told me this morning that it was a serious matter and he would have to consider it before he would be willing to allow it to go to a vote. Urge your friends to press the matter upon Senators from their states. I am practically certain there will be a majority for it if we can get a vote on the question, but you know when objection is made it prevents present consideration. I shall let no grass grow under my feet as soon as I return from the West, whither I start to-night to be gone until Monday.

Yours truly,

B. R. TILLMAN.

In his report next year to the association, President Goodell thus describes the result: "An old Norse proverb runs 'The must-be goes ever as it should-be.' The bill establishing schools of mines and mining in connection with the colleges for the benefit of agriculture and the mechanic arts has evidently not been a must-be, for it has gone ever as it should not"; and he adds: "The situation was such that it required the presence of the entire committee in Washington four times, and individual members ten and twelve times."

But at this session of Congress a great victory was won for the land-grant colleges by the passage of the Second Morrill Act, and Senator Morrill from his home in Vermont wrote President Goodell a letter which tells its own story.

STRAFFORD, VERMONT, *Aug. 31, 1890.*

MY DEAR SIR, — Please accept my cordial acknowledgements for the valuable aid you rendered in promoting the passage of the Agricultural College Bill. A veto would seem impossible, but I have not yet noticed that the President has signed the bill.

Very sincerely yours,

JUSTIN S. MORRILL.

PRES. GOODELL

Mass. Agric. College,
Amherst, Mass.

As president of the Agricultural College President Goodell was ex-officio a member of the State Board of Agriculture, and as such always attended the meetings of the board, served on committees and was, during his entire connection

with the board, a member of the standing committee on Institutes and Public Meetings. This involved the selection of subjects for discussion, and his wide and intimate acquaintance with men eminent in agricultural matters helped materially in selecting and procuring speakers. During the ten years that the campaign against the gypsy moth was carried on by the State Board of Agriculture, he made many arguments in favor of appropriations for the extermination of the pest. He eloquently warned the legislators of the results of a cessation of the work, and the present condition of the war and its heavy cost are sufficient proof of the wisdom of his unheeded warning.

The real position of President Goodell in the estimation of his fellow citizens is perhaps as well stated as it could be in the following letter of introduction to President Cleveland from His Excellency, Governor Russell: —

COMMONWEALTH OF MASSACHUSETTS,
EXECUTIVE DEPARTMENT, BOSTON, *Jan. 9, 1893.*

HON. GROVER CLEVELAND, New York.

MY DEAR MR. CLEVELAND, — Mr. H. H. Goodell, President of the Massachusetts Agricultural College, has been appointed by the association of agricultural colleges of the country as a committee of one to wait upon you and lay before you its views in reference to making the office of Assistant Secretary of the Department of Agriculture a permanent office, and to suggest the name of Major Alvord as their candidate for the position.

I am very glad to say that Mr. Goodell is a man of the highest character and position here in Massachusetts, thoroughly fearless and independent in his views of polit-

ical and public questions, and one who has been most successful as the head of a great institution. His views upon a question of this nature are entitled, and I am sure will receive, careful consideration.

As I have known Major Alvord for some years as a most able and uncompromising Democrat, I cannot refrain from speaking a word of recommendation in his behalf.

I have not, nor had I intended to, bother you with recommendations of candidates for office. While scores of men apply to me for recommendations I have uniformly refrained from giving them, because it seemed to me that you were already sufficiently beset with matters of this character.

With kind regards, I am,

Sincerely yours,

WILLIAM E. RUSSELL.

As the natural result of overwork and the burden of the great experiment he was carrying, which pressed very heavily for years, admonitions came, of a very serious nature. His health while in college seemed to have been good, and according to his account improved during his service in the army. But after going to Amherst weaknesses developed of so serious a character as to demand periods of entire rest. As early as 1880 he was in the Adirondacks from June 4 until deep into September; the next year he went to Georgia for two months; the following year he made a flying trip to Europe with his brother, Dr. William Goodell, visiting France and the Netherlands; in 1887 he resigned the presidency of the college on account of his health; in 1891 he went to England; early in 1894 he was obliged to

submit to an operation for appendicitis, and in July went abroad with family friends, Mr. and Mrs. Thomas Gilman Stanton of Winchester, Mass., but was home again the last of August; in 1903 he went to Nassau and Florida, and in 1905 to Florida. The last three years of his life he was obliged to wear a corset, or as he called it "a harness," for osteo-arthritis. His life was one long fight with disease, but the moment there was any improvement in his condition, he was back at his post, for he felt that a necessity was upon him and he must work. His indomitable energy could not be restrained, and he never knew how to husband his strength. The talent of repose was denied him. He could not do nothing; he could not lie by.

The trustees of the College did everything in their power to relieve him of work. They voted him vacations without loss of salary; and when he was elected chairman of the executive committee of the Association of Agricultural Colleges and Experiment Stations, they allowed him the necessary time to attend to those duties, which often required long absences from the college; as in the case of the Second Morrill Act in 1890, when he was in Washington most of the time for more than two months. These are only illustrations, among many, of their thoughtfulness.

Some account may now be given of four of his enforced pauses, the only ones of which any record is left. He sailed for England August 31, 1891, in company with his wife, who remained with him at Southampton until October 11, when she returned to America, as he was sufficiently recovered to be left alone. On October 13 he wrote: —

"I skipped down to the island of Jersey for four or five days, and took notes which I hope to work up into a lecture

sometime. It was a most enjoyable trip and a unique one to me. I went round among the farmers and saw the cattle at home. I was lucky in going with a man who has imported Jerseys for over fifty years, and he took me round with him on his buying trips. It was about as instructive and pleasant a trip as I ever took. Sunday I attended service in a church about eight hundred years old. The English garrison marched in in full regimentals and the music was by the full band. You can't think how it echoed and rolled around in the stone arches. It happened to be Harvest Home festival and the church was filled with flowers, fruits and vegetables."

A lecture entitled "The Agriculture of the Channel Islands" was prepared on his return to America, and is given in this volume.

From London, November 11, he wrote: "I am, I hope, entirely recovered. Have pulled up steadily ever since I left America and hope before long to be turning my face towards the States." But his hope of recovery was not to be realized.

During his visit to England in 1894, he was very much interested at Oxford in the Bodleian Library, at Stratford in everything pertaining to Shakespeare, and in the Isle of Wight, in Carisbrooke Castle, now mostly in ruins, with its historical associations, its foundation going back to Saxon times, its keep of Norman times, its walls and tower of the thirteenth century, and its residential buildings added during the reign of Elizabeth. Here King Charles I spent a year, a prisoner of the Parliament, scheming to pair off the Parliament against the army, and made his last move on the checkerboard of Fate, in an attempt to bring

a Scottish army into England, which led to his trial, and, as Oliver Cromwell said, to the "cruel necessity" of his execution.

In the year 1895 came a period of terrible and torturing anxieties, which made his life, for months, an awful nightmare, bristling with horrors. The son of a missionary, he knew something of the exposures of a missionary, even in the near East. He had a sister in Armenia with her family, who was particularly exposed, as her husband was a missionary. He knew the character of the Armenians and of the wild tribes of the mountains, and the character of the Sultan, Abd-ul Hamid II, "the assassin," as Gladstone called him. When the Sultan let loose the savage Kurds and supported them with Turkish soldiers, inspired by Moslem fanaticism, upon a clever and industrious, but unpopular and unwarlike people, Goodell knew full well what would be the result, and his imagination pictured such scenes as Milton described as taking place in the valleys of Piedmont, two hundred and forty years before. "Atrocity," says the great poet, "horrible and before unheard of! Such savagery — Good God, were all the Neros of all times and all ages to come to life again, what a shame they would feel at having contrived nothing equally inhuman!"

He not only prepared an address, which was published, but he appealed to the Governor of the Commonwealth to use his influence with the authorities at Washington, and addressed letters to influential members of Congress. But nothing came of it. The great powers, for one reason or another, declined to interfere. But the next year came the Turkish St. Bartholomew Day, or days, in the streets of Constantinople, and Lord Salisbury, then at the head of

the British Government, "solemnly and publicly warned the Sultan of the consequences of his misgovernment and suggested the eventual necessity of the employment of force." Happily Goodell's sister and her family escaped the brutalities they were obliged to witness.

Amid all his trials he had many things to cheer him. At Commencement, 1897, he was presented with a very large and beautiful loving cup, with the following inscription: "By the Alumni and Former Students of the Massachusetts Agricultural College, June 22, 1897. In recognition of Thirty Years of Faithful Service to our Alma Mater, and in loving remembrance as a friend and teacher." It was a tribute he greatly appreciated, and he could not speak of it without emotion.

In the fall of 1902 it became alarmingly apparent to his friends that his condition was critical and demanded immediate attention, although it did not seem so to him. He thought that if he could get away for a week or two, it would do him a world of good, but he did not see how even that was possible. His friends, however, so arranged matters that there could be no reasonable excuse on his part, and one of them, Colonel Mason W. Tyler of Plainfield, N. J., offered to relieve him of any financial difficulty. This movement was generously seconded by the trustees, who unanimously voted him leave of absence without loss of salary. When he was informed of what was going on, he expressed at least a part of his feelings in the following letters.

AMHERST, MASS., *December 18, 1902.*

MY DEAR BLESSED MASON, — Truly am I blessed above all others in my friends. Stebs has just sent me your generous

offer, but I cannot accept it, much as I would like to. My annual report to the legislature is due in about two weeks, I have only just commenced it. Then I shall have three bills in the legislature whose wild career must be watched over. After that, if I could get away for a couple of weeks, it would greatly build me up. I have had a little whack of bronchitis and to-day was out for the first time. So you see I am improving and my back, under the gentle treatment of a corset, is slowly limbering up.

Heaven bless you for your kindly thoughts of me.

Affectionately,

Your DAD.

A few days later, when the whole scheme was revealed to him, he wrote: —

AMHERST, MASS., *December 23, 1902.*

MY DEAR MASON, — They say corporations have no souls. I am beginning to doubt it. The committee of trustees with whom for six months I have been a co-worker met last Saturday unbeknownst to me (but I suspect Stebs); agreed to take upon themselves the duty of care of our bills in the legislature this winter, and voted to recommend to the full board of trustees to give me leave of absence immediately after presentation of my report. Verily my cup runneth over, and when I think of the beautiful friendship that has bound you and Dick and Stebs and myself together for so many years, my eyes grow quite shiny and I thank the Lord that I have been permitted to be one of you. And so, my dear Mase, sometime after New Years I will come down to Plainfield and report for orders.

May all the joys of Christmas and the brightness of the New Year descend upon you in a four-fold measure, and what an aureole will be yours!

With love to Mrs. Mase,

Ever thy DAD.

After completing his annual report to the legislature, he started January 16, 1903, for Nassau. He saw many things that interested him and as usual the vegetation attracted his attention. January 27 he writes: —

“This is a wonderful little island. The temperature has not fallen below 70 and it has twice gone up to 79. It has showered every day but one, and what with the warm debilitating atmosphere, filled with moisture, one does not care to move much. But sitting on the piazza, looking off upon the water, there is a most delicious breeze and it is hard to realize that at home you are all shivering over 10 to 20 temperature. The two most delightful things here are the fruits, — grape-fruit, three kinds, shaddocks, paw-paws, . . . bananas, and cocoa trees, — and the bathing. The latter is simply delicious. I go in every day and come out feeling like the morning star. It (the water) is so pure and fresh and green that you can look down a good many feet. They have one or two boats constructed with a glass bottom, and as you are towed along by a small tug you can watch the coral, the sponge and the star-fish on the bottom. I have not yet tried it but they say it is most beautiful in effect.

“The star excursion is a kind of combination one. You are rowed a mile across to Hog’s Island, furnished with bathing suit, and take a swim, eat all the fruit you care to,

and then rowed back, all for twenty-five cents. Here is richness for you! There are no troops here and the police are colored. They look funny enough in their helmets and red stripes. They are either very effective or else the people are very good. I think it must be the latter, for I am told they all eat oatmeal in the morning, and you know what a penitential diet does for me. I don't know just what to say about myself. Caught some cold yesterday and don't feel like the morning star to-day, — short breath and puffiness, — but I hope for the best."

Writing again from Nassau on February 7, he gives this account of himself: —

"I am just out of the water from a swim and find your cheery letter, but my hand is so shaky that I have taken to a pencil. My friends have been more than kind to me, for the post-office to-day brought me seven letters; three of these, it is needless to say, came from my wife. And here let me stop to say: Heaven bless our wives! What in the world could we possibly do without them? The worst, or the best, of it is that they treat us so well. We get the swelled head and think we are some pumpkins, when we are not worthy to kiss the ground on which they stand. I am afraid you may think this is somewhat Vancien, but I have been thinking all this morning how she, i. e. my wife, has had to watch over and take care of me all the time, and how little I have been able to do for her.

"An interesting item to you may be that there are no taxes here except on glass. Hence you may drive through the coon quarter of the city, namely, in the quarter where 11,000 live, and you will not see a single glass window, — nothing but wooden shutters. At night, after six o'clock,

it is very gloomy. Every house and store shut up tight, without a gleam of light. Contrary to all precedent, it has rained every day but three since my coming here, and I cannot truthfully say anything more about my health than that my bark is on the island."

It would seem from this parody on Byron's line and pun on the word "bark" that his cough had not subsided.

The weather was unfavorable, and finding that his stay on the island was not likely to prove beneficial, he crossed over to the mainland and settled for a few days at Jensen, Florida. There was at once a marked change in his condition and he writes March 7: —

"Here I am in this beautiful little town on the Indian River drawing in life and health with every breath I draw. Have ceased coughing, — can breathe like a major and even survey the intricacies of my collar-button, or the lacing of my shoe-strings without a quiver. A narrow island separates us from the ocean, and I fall asleep to the murmuring of the wind and the steady beat of the surf. No one could help getting well in the soft, balmy air and beautiful sunshine. But the old problem of steering by the North Star confronts me worse than ever, for the sun rises in the South and the Big Dipper is upside down. How can I right myself when all signs fail? I think I shall stay here a week longer and then go to Jacksonville.

"The Indian River — horrible misnomer, for an arrant arm of the sea that has lost its way and goes wandering along some hundred miles or more — is chuck-full of fish, and you cannot look upon it without seeing half a dozen or more splendid red mullets leap into the air and fall back with a splash into the water. All manner of tropi-

cal fruits grow here. In our hotel garden are seven or eight different-hued hibiscus in bloom, orange trees, limes, guavas, all in fruit, plum trees, Australian oaks and pines, the camphor and cinnamon. The last two have very fragrant leaves. But alas! that amid all this beauty there should be any offset. But there surely is. A depraved microscopical red spider called 'Jigger' [*chego*] inhabits the vegetation and burrows in the person of the unwary spectator. I have met the jiggers and I am 'theirn.' They have rioted and are still rioting over my blameless body. From my waist, in fact my neck, down to my toes I am a spotted leopard, and in fact I find it as hard as he does to change his spots. I counted 153 burrows of these sinful miscreants and gave it up. But, oh, the blissful luxury of a scratch! Job and his potsherd are nowhere. I have been told to grease myself, and I have done so till I can wiggle through the smallest hole a politician ever found. I think I am heading them off, but the race is a hot one, for they got a mighty fine start. From Jacksonville I shall go to Asheville to acclimate myself, and so North and homewards which I am forbidden to reach till the 12th or 13th of April."

JENSEN, FLORIDA, *March 14, 1903.*

MY DEAR —, — I have been having a most delightful time here in Jensen. Allen ¹ has returned, and we see each other almost every day. The old friendship and associations have been renewed, and as we skimmed the waters in our light boat we have talked and laughed over the old times. I have questioned him closely about the 'paragogic nu,' and as he professed an entire ignorance of

¹ W. Irving Allen, a classmate.

the subject, I owned up that it was a terra incognita to me. He owns a fine plantation of pineapples and about ten acres of bean-land across the river, on the island that separates us from the ocean. . . . A pineapple plantation is a very beautiful sight, for you see bud, flowers and perfect fruits at the same time in the plantation. The flowers come out singly on each scale of the half-grown apple. They are of a deep blue and contrast with the brilliant red of the inner leaves and the red brown of the fruit. How the mischief such a luscious fruit ever grows out of the pure white sand gets me, but Nature beats us all, and I am not going to set myself in opposition to her laws. The beans do not grow in this sand but in a fine soil on the island. They are shipping at this station about a thousand crates a day to New York. The leaves of the pineapples terminate in a very sharp, aggressive thorn, and as the edges are alive with thorns it is no joke to gather the fruit. The picker goes in with leather gaiters, gray duck trousers and long gauntlets, and throws the apples to the catcher, who follows him up in small paths that have been cut or left across the field twenty or thirty feet apart. Then they are taken to the packing-house on wooden tram-ways that bisect the field, and there they are sorted, packed and crated. There are about four miles of this pineapple plantation skirting the river-front. But how Nature, — Well, there; I'll sure just leave Nature to work out her own salvation alone in her own sweet way, without interference on my part. The planters all up and down the coast line recognize me as Captain Allen's friend, and I have received many courtesies from them.

I shall stay here till Wednesday the 17th, then go to Jack-

sonville, stay a couple of days to see Sam Vance, thence to Asheville for a fortnight's stay to harden myself, and so work my way slowly North, for the Drs. won't hear to my getting back before the 9th or 10th of April. You will be delighted to know that I have not coughed nor had an attack of short breathing since coming here.

I don't know when I shall be at Asheville, but I think old General Delivery will take care of my mail.

My very best love to Mrs. — and believe me,

Yours always.

This is our first rainy day since reaching here.

From Asheville, N. C. March 22, he writes: "Your letter warning me of Asheville found me here. To tell you the truth I think a little cold will do me good. I have found it rather warm and enervating, and want to be able to do a little walking without perspiring to beat the band, and feel my collar and bosom melting away. I shall be sorry indeed not to stop over and see you, but I cannot tell. The Chinese Ambassador has brought five boys with him for education. He wants me to take one into my own family, provide places for the others, and be their guardian. I have agreed to stop in Washington and see him."

The Ambassador was Sir Chentung Liang-Cheng, who now (1911) represents the Celestial Empire at the Court of Berlin. When a boy he was sent to America for education, and while here, pursuing his studies, became very intimate in Professor Goodell's family. A friendship grew up between the professor and the boy, which was cherished by both with ever-increasing admiration and affection until the hand of one had withered.

On April 13, President Goodell arrived in Amherst, but not very much improved in health. A council of physicians was called and on the 27th he writes: —

“I have delayed writing until I could give you the report of the Doctors. They have now pinched, punched and rapped at the seat of life. They have listened to the prolonged expulsion of the air from my lungs and they have twisted, pulled out sideways and shut up like a jack-knife my legs, and they all with one accord declare there is nothing the matter with me except ‘that tired feeling.’ They have given me a mixture of iron, quinine and strychnine to take three times a day. They have given me nitroglycerine and strychnine pills to take when I feel my breath is coming short and fast; and they are building on an ingenious plan a new corset to fit more tenderly around my ribs. Well, now, my dear M., all this is literally true. They find no organic disease, but declare me to be worn out and without strength to expel the air from my lungs; and hence the struggle, in which the impure air gets the better of me. It is very mortifying to know that I am not sick but only tired, and so I am slapping into my sacred person all sorts of poisonous and sedative drugs and trying to sleep eight hours a night. Please don’t think I am exaggerating, for I do not believe I have one single word. But when Dr. S. in New London, Dr. H. in Amherst, and Dr. G. in Boston, all tell me the same thing, I can’t help feeling a little bit easy round the edges as if I had been babying myself — and yet they all hint at all sorts of abominable things if I don’t let up on work. It’s dreadful hard when there is so much to be done.

“Dick was here yesterday for ten or fifteen minutes.

What a pleasure it is to get back once more into the midst of our circle! I did n't know how dear you all were to me till I came away, and then M. and D. and S. tugged at my heart-strings. The Bible says, 'Every heart knoweth its own bitterness.' I think there ought to be something like this: 'Every heart knoweth its inability to express its inmost feelings.' For I can't measure out in words my thank-offering. I can only thank God for giving me so dear a friend as you, who have been loyal to me so many years."

From this attack he gradually recovered strength to attend to the ordinary business of the College; but the brisk step and spontaneous activity, so characteristic of him, were gone. It was very apparent, even to a casual observer, that every movement was the result of a conscious effort of the will. But the blithe, mirthful spirit was still clearly in evidence, and he faced the duties of his position with the cheerfulness and self-possession of a man in full health. This probably led many to think that his condition was not so serious as it really was. But for two years the students lost something of his cheering and inspiring personality. Yet there seems to have been no failure in his mental grasp. His last report, that of 1905, which must have received its finishing touches after his final and fatal attack, shows no loss of intellectual power or enthusiasm. Indeed it is the most potent of them all, especially in his statement of the needs of the College.

In the meantime he was really hovering so near the edge of life that an exposure of any kind was pretty sure to prove fatal. It seems impossible that he should not have been aware of his condition; but if he was, it did not seem to have disturbed him in the least, and probably did not. His

personal friends and the trustees, however, were not without grave apprehensions. About the middle of December, 1904, while waiting for a car at Holyoke, he took a chill which utterly prostrated him. This attack was much more alarming than any he had as yet experienced. Again his friend Colonel Tyler made it financially easy for him to go wherever it was thought best, and have his wife as his companion. The trustees were not to be outdone, and at a meeting held January 2, 1905, voted to give him six months' leave of absence with full pay. The motion was made by Mr. William H. Bowker, one of the graduates of the first class sent out from the College, who spoke with a good deal of feeling, and there was a very warm expression of sympathy and affection for the president in this new trial.

Here is his own account of his condition, written December 27, 1904: —

“This last attack seems to have knocked things upside down and left me as far as health is concerned in a pretty shaky condition. To state very briefly, there is a slight effusion of serum in the lung cavity, which is gradually being absorbed. Then there is a constant emphysema of the lung which keeps me short-breathed. My limbs are slightly swollen, but the most serious trouble is some irritation of the urinary organs. Anyway, as near as I can find out the doctors propose to keep me in the house until everything is cleaned up and then send me South till warm weather. For eleven days I have not had a bit of anything solid, — nothing except milk and soda water, — and I think I am slowly improving, but it is not absolutely strengthening.”

The improvement he looked for was very slow and on

January 15, 1905, he expresses his feelings and states his condition: —

“No human being has ever had so many friends as I have. It is almost worth falling on evil days to see how they rally round me. God bless and keep you all. Pardon my delay in not answering your last, but I have had three very bad days without any breath to speak of. The serum in my chest has stopped being absorbed and I don't know when the Doctor will let me start.”

Ten days later, January 25, he writes: “In regard to the time of my going South, I am sorry to say I can tell you nothing about it. I got into a pretty miserable situation with certain features that were rather alarming. They sent for a specialist from Boston. He was here Tuesday night, looked me over, and pronounced it as his opinion that I shall pull up from this provided I give myself complete rest, — and so he commenced giving me rest by sending me to bed and ordering me to remain there — or on the lounge — until such time as it seems feasible to let me loose on Florida.”

It would give a very erroneous impression as to the state of his mind if the letters here cited were thought to be wholly given to describing his various symptoms. His references to his condition are a very small part of them. The great burden of the letters from which extracts are made is given to making fun of the friend he happens to be writing to, or to some personal matters which interest him, and especially to expressing his gratitude to his friends. It is all told in this sentence, although expressed in many different ways: “It is very delightful to see how my friends rally round me and I assure you I appreciate it to the uttermost.”

He had a friend to whom the spelling of ordinary English words was an inscrutable mystery, who happened to dictate a letter to a typewriter for him, and he wrote in reply February 20: "Thanks for your good long letter of February 13. The neatness of your letter and the accuracy of your spelling leads me to think that the use of the typewriter is a means of grace to you. I am still housed here in Amherst. 'Afflictions sore long time I bore,' but rough breathing seems to hang on worst of all. I have been hoping against hope, to leave here next week, about the end of March, but I am very much afraid that the doctor will put me off another week. I think we will settle down for our health at Fort Pierce. When we get comfortably settled, I will let you know just where we are, and then I shall expect frequent messages."

The last letter written in Amherst, the day he left for Florida, shows that he knew that his case was serious, but it has in it the ring of courage that never fails. He was not of those who accept Longfellow's sentimental metaphor: —

And our hearts, though stout and brave,
Still, like muffled drums, are beating
Funeral marches to the grave.

It was written to his amanuensis: "For all your hopes and prayers in my behalf, accept my thanks. I need them all. For verily I have been down into the depths and my head is barely above the waves now. 'Yes,' said the doctor, 'there is not an organ in your body performing its functions properly, sir.' Hence you may know why I closed up my note so hurriedly last week. The spirit indeed was willing but the flesh was almighty weak. We expect this afternoon to proceed to New York and take boat for Jacksonville.

I do not know whether serving two masters is another case of God and Mammon, but anyway I commend to your care Professor Brooks. Deal gently with him — and hold the fort.” (Professor Brooks had been appointed president *pro tempore*.)

But at last, to use his own expression, he was “let loose on Florida”; or, as he states it in another place: “I am to flee to the mountains of Hepsidam.” He felt great confidence that the climate would have an invigorating influence, and said that it was the only place that did him any good before. He left Amherst in company with his wife, on March 6, and sailed from New York the next day for Jacksonville on the way to Fort Pierce. They arrived at Jacksonville Saturday morning, March 11, spent the day in the city, and went on to Fort Pierce in the evening, arriving there about 8 o’clock.

The journey was very tedious and irritating. He writes March 17: “We have fairly comfortable quarters at this hotel. I am afraid your good wife would have something to say about the beds, — the same as mine does, — but that is one of the things that has to be endured. As we sit in our room, in the second story, the oleanders in the garden are flush with the windows — there are palmetto, rubber and lemon trees, and the garden slopes down to the water, where are colonized something like a hundred pelicans, and it is our great amusement to watch them dive and catch the fish, which they lay neatly away in their pouches for future reference. I am sorry to say that my legs began swelling again as soon as I left home, so that I am confined quite severely to the house. The weather to-day is all that one could ask and I shall hope now to improve.”

A few days after his arrival he wrote: "If I had had the strength of a flea and the perseverance of an ant, I should have written you before this, but the fact was that two of the old symptoms came back on me after reaching here, the swelling of my legs and increased difficulty in breathing. The weather is not altogether what one could wish. Yesterday we had a day to make one dream, temperature 79, with a fine breeze blowing most of the day. I expect as soon as the weather becomes settled and warm that I shall brace up and take a fresh hold. I shall trust in my next letter to be able to say: 'Behold how long a letter I, Dad, have written unto my Calvin.'"

If fine spirits and courage could have saved a man in his condition he would surely have pulled up.

He had expected to stay at Fort Pierce a month longer, but as the season was over and the hotel was closed, there was nothing for him to do but to go to St. Augustine. This he did the more readily for, as he said, it was a larger place and there he was sure of finding a good physician. But the journey was very tedious and aggravated all his symptoms. Almost immediately on arriving, the doctor ordered him to the hospital. The evidences of failing strength were very apparent. On April 10, he asked his wife to write at his dictation, but when he came to the case in hand he did not feel equal to it. She writes the same day: "He is very cheerful as usual."

The next day he put a postscript to her letter: "I hardly know what I can say to you. I came down here hoping and expecting to improve immediately, but instead of that I had to go to the hospital and it is too soon to speak of results. My doctor used to know my brother William, and

took care of him in his last days of life, when he was here in St. Augustine. He is a man wonderfully well posted and there seems to be no end to the reserve forces that he is able to fall back on. As soon as I learn anything from him, or can speak favorably myself of my condition, I will write you more fully. My breathing this morning is much easier, but the swelling has not gone down very much but is improved somewhat."

His next letter is written with pencil and simply says that the doctor has recommended that he go North. He was disappointed as he wished to stay longer at St. Augustine. His wife writes April 19: "The doctor advises us to get nearer home. We go by the Savannah line of steamers direct and will arrive in Boston Monday the 24th." She understood what the doctor's advice meant, for it had been evident to her for some time that the end might come at any moment, although he showed no sign to the last, by word or look, of anxiety on that point.

When within a few hours' sail of Boston Bay, at 1.45 on Sunday morning, April 23, while in the full possession of his faculties, he was relieved of "the turmoil for a little breath," so gently that he probably mistook the Angel of Death for the Angel of Sleep.

Like a shadow thrown
Softly and lightly from a passing cloud,
Death fell on him.

The funeral services were conducted in the College Chapel at Amherst, on the afternoon of April 27, and were of the simplest kind. The casket was covered and surrounded with many beautiful tributes of esteem and affection, and the audience was one whose very presence was the finest of

tributes. Such a concourse of intelligent, active and enterprising men is seldom seen together, and among them was the conspicuous figure of the minister of the Chinese Empire. He had been informed of the death of President Goodell just in time to take the train that made it possible for him to reach Amherst in season for the funeral; and cancelling all his social engagements for fourteen days, he came to pay the tribute of his presence to a friend of whom he said, "He has been as a father and a brother to me."

While the remains were being escorted to their final resting place in West Cemetery by the battalion of college cadets, the bells of his Alma Mater and of the College of which he had been President sent out, to slow and measured beat, sounds that to some in that company of friends did not seem to have the solemn, funeral toll, but rather the tone of the bells that Bunyan's Pilgrim heard as he approached the gate of the Celestial City. A few words were offered of prayer, of thanksgiving that "the song of woe is after all an earthly song," of heartfelt thanks for what we had had, and for the hope immortal; and Mother Earth received to her safe keeping all that was visible to the mortal eye.

When the cadets returned they gathered round the flag-pole in the college Campus, where the beautiful symbol of the Republic, which he had followed when it was being torn by shot and shell, hung at half-mast, and taps were sounded. It was both a beautiful and a significant service. The soldier, in the army and out, had fought the good fight, had finished his course, had kept the faith. The world was all before them, to be made better by their words, or works, or both, and the music that calls to duty after taps is inspiring.

IV

CONCLUSION

It has been the general purpose in this sketch to let President Goodell, so far as possible, give his own account of things, events and persons as he met them from time to time. There are, however, certain traits of character that lent an indescribable charm to his conduct and relations with men, which deserve special notice. After he resigned the presidency in 1887 he consented to reelection on condition that, when he was relieved of certain work himself, it should not result in increasing the labors, or diminishing the pay, of any of his associates in the Faculty. This is illustrative of his whole career. Thoughtfulness of others was ever in the foreground of his mind. It may be safely doubted whether he ever consciously sought an advantage for himself which would result in an injury, or be unjust, to any one else. Indeed, the various positions which he held were not of his own seeking, but were thrust upon him, and whatever honor, or emolument, was connected with them was earned by bearing the great responsibilities they imposed and the hard work they entailed.

An unobtrusive guardianship of the interests of others was characteristic of his generous nature and manifested itself in many ways. He took a deep interest in the children of missionaries who were sent to this country to be educated. He kept in touch with his college classmates and

took a lively interest in their varying fortunes, and the same spirit was extended to the students of his own college both before and after graduation. The bright boy struggling for an education could have no better friend than the president, and the drain on his resources was sometimes very great. There is always a liability of pecuniary loss in such cases, which he could ill afford to bear; but like all generous men, he never learned anything by his own experience or the experience of others. When the student had gone out into the world, he was still an object of personal interest. President Goodell often did, to help others, what very few men even of a generous nature would have done, especially if they had a reasonable excuse for taking no interest in the matter.

Reference has already been made to the effort to establish schools of mines and mining in connection with the land-grant colleges. Of President Goodell's part in this undertaking it has been said: "Nothing, perhaps, better shows President Goodell's conscientious devotion to the duties of his office, regardless of the interest to him personally and to his institution, than his persistent efforts, as chairman of the executive committee, to secure the passage of a bill to provide a school of mines in connection with the land-grant colleges. This was a matter in which most of the institutions represented by the Association were greatly interested, and President Goodell worked long and faithfully in its interests, although knowing full well that the school if provided would become a part of the Massachusetts Institute of Technology. It never seemed to occur to him to labor less diligently on that account, and he spent weeks in Washington during the sessions of Congress,

and made frequent trips back and forth, when the condition of his health would have been abundant excuse for less strenuous effort."

He was a keen observer of men, and his large experience in legislative business caused him to recognize the value to a cause of its being well stated. This undoubtedly led him to emphasize strongly, as it was natural for him to do, "the study of one's mother tongue," and to give it a larger place in the curriculum than is usual in our agricultural colleges. In this respect he was master of what he admired. Resolutions referred to a committee of which he was a member were usually returned to the assembly much shorter and very much clearer. His annual reports to the Governor and Council, and especially his report as chairman of the executive committee of the National Association of Agricultural Colleges and Experiment Stations, show a full knowledge of the subject and a conciseness and lucidity of statement which reflect the nature of his mind. Hard-headed business men, who usually have strong convictions that their ideas are right, found him clear and just in his statement of the point in controversy.

A contractor had a large bill against the College, which had been running some three years and had been the subject of much angry altercation. It was hanging over the College when Professor Goodell was elected president, and he (the contractor) thought that, before having recourse to the law, he would present his bill again. To use his own words: "I stated my side of the case and then President Goodell stated what he thought would be right for the College and just to me, and I thought so too, and we settled in half an hour."

Professor Goodell was a teacher *par excellence*, but after he became president, the work of administration gradually increased to such an extent that after 1890 he did little work in the class-room. But that he was a great success there is the unanimous testimony of all who entered his room. The testimony of three of his old pupils who have attained eminence as educators will give a clear idea of his relations with the students in and out of the class-room.

A professor of agriculture writes: "His relations with the young men were of the closest. He made them feel his love and his interest in them, while at the same time he retained their thorough respect. His great ability and sound scholarship, combined with his great warm heart, his bright and genial personal characteristics, his quick and clear perceptions and excellent judgment, made the students feel absolute confidence in him. They knew he was equal to any emergency. They not only felt he was their friend, but knew it. He was a rare teacher. He always had perfect command of his subject, and the students under him soon came to feel a strong desire to work in his subjects."

The president of an agricultural college writes: "I take pleasure in saying that he was one of the most animated and inspiring teachers that I ever knew. His class-room was always filled with radiations of animation and wit. He had an original way of putting things, and expounded everything with such vim and snap that no one could sleep in his class-room and all must listen and learn. As an illustration of his quick wit, I remember that a classmate of mine was reading German one day, when he unwittingly translated the word 'bauer' as pheasant, whereupon Professor Goodell

immediately remarked: 'Don't make game of him, don't make game of him.'"

The eminent diplomatist who represented with distinguished ability the Chinese Empire for some years at Washington, Sir Chentung Liang-Cheng, writing from Berlin, pays the following tribute to the influence of the character of President Goodell: —

It was my good fortune in my boyhood days spent as a student in America, to have enjoyed the friendship and ever-inspiring influence of Professor Goodell. And now I avail [myself of] the opportunity to express my deep satisfaction that a memoir of his life is being written, to perpetuate the memory of one whose life of usefulness may be well followed by others.

Professor Goodell possessed all the human good qualities which won for him the respect and love of his students, his neighbors and his acquaintances. He was a man with a big heart, always ready and most cheerful to assist or do a kind turn to his fellowmen. He oftentimes sacrificed his own wants, in a quiet way, in order to relieve the more urgent needs of those who were under his charge. Duty to his college, which he had served so faithfully and admirably, was his foremost interest. He labored incessantly for its betterment, notwithstanding his failing health demanded a relax of his energies. His cheerfulness never seemed to forsake him even under the most perplexing circumstances. He was ever ready to have a sympathetic word and impart his counsel to the youthful student who sought his guidance; and was always able to inspire hope and courage. To

be in his association was to survive in an atmosphere of cheerfulness and enlightenment.

A soldier, as well as educator, one cannot fail to be impressed by him. The highest citizenship is public welfare first and private interest secondary. Nor can one be restrained to be imbued from him that sense of honor, justice, duty, and fraternity — all essential qualities for the make-up of a successful and a happy life.

Professor Goodell, in his long valuable service to the Massachusetts State Agricultural College, during which time a number of my countrymen have received his watchful care, has moulded the lives of many a sturdy young man for the world of usefulness. His life will be cherished with grateful memory by all. No profusion of words is sufficient to exalt his noble character. And the same grateful sentiments will be reëchoed from the fields of distant Manchuria and from the far-off shores of the Orient.

CHENTUNG LIANG-CHENG.

BERLIN, 25th April, 1911.

And still another says: "President Goodell was an inspiring teacher, very thorough and exacting in his work, and spared himself no pains in making his subjects thoroughly understood by his students. He had a great faculty for discerning very quickly whether or not a student understood the matter he was trying to present, and had little patience with shamming or superficial work. From the earliest days he evidently had a very strong influence over the boys. He was to them a counsellor and companion, one whom they admired and trusted. He always impressed me as being eminently just. He divorced personal feeling from official duty."

To help his classes in history and literature he drew up and published "A List of Fictitious Works illustrating Historic Epochs," giving the century when and the country where the scenes of the stories were laid. There are something like five hundred and fifty entries. He prepared also a Chart of Contemporary Sovereigns of Europe.

Discipline in an army and discipline in a college is an essential feature in the success of both. President Goodell seems to have understood how to get on with young men. As a disciplinarian it has been said by one who had been long associated with him in the Faculty: "He was patient and long-suffering, but when patience was exhausted and transgression was continued, he was firm and unyielding in inflicting punishment. He knew when to compromise, and the kindness of his heart prompted him to search for every avenue of compromise not inconsistent with justice and equity. He knew too when not to compromise, and when this time came he was ready to stand his ground regardless of the consequences personal to himself."

The faculty of a college are not always "a happy family," and it is sometimes more difficult to govern them than the student body. One of President Goodell's predecessors is said (on good authority) to have remarked, that "the students did not give him half as much trouble as the professors and their wives." In answer to the question, "What were President Goodell's relations to his Faculty?" the following answer was received from one who had full knowledge of the case.

"In all his relations with his Faculty, President Goodell was uniformly kind and considerate. He respected the dignity and authority of his Faculty as a governing body.

In cases of severe discipline he always allowed the students to have a fair and impartial hearing; but when the Faculty had reached a decision and passed sentence, he insisted that there should be no appeal and that the sentence be executed. He had great sympathy with inexperienced teachers. Many an hour did he give in counsel and advice to them, trying to bring them lessons from his own experience. Even when he thought that the archer would never be able successfully to "teach the young idea how to shoot," he would hope against hope and give the unfortunate another chance. Among the many hearts saddened by his death not a few were those whom the President had helped in the trying task of teaching college students."

His acquaintances were very numerous. There were probably very few men interested in industrial education whom he did not know personally; and beyond this, from year to year he had been accustomed to appear before committees of the Massachusetts Legislature and of the National Congress, and became acquainted with the leading men in those shifting assemblies, and he never forgot their looks or their opinions. Such was his nature that the casual acquaintance was so favorably disposed toward him as to proceed naturally to esteem and friendship. His circle of friends was very large, and included the representatives of all conditions, all parties, all races, and all religions. Differences of opinion on important points, and even sharp contests where large pecuniary interests were involved, did not disturb his feelings toward the friend who opposed. In the contest between the Massachusetts Agricultural College and the Massachusetts Institute of Technology, in regard to the division of the money granted by the Federal govern-

ment for agricultural and mechanical education, the two contestants, President Goodell and President Francis A. Walker, came into court every morning, shook hands, chatted together and addressed each other by the old familiar names of "Frank" and "Harry." Yet each one was dead in earnest that he was right, and the other was wrong; but when the smoke of the contest had cleared away, it did not leave even the shadow of a light cloud on their spirits. Indeed his loyalty to his friends was chivalrous. He could not desert a friend even when that friend was guilty of an unpardonable mistake or even a crime. He illustrated in his conduct Emerson's declaration, "A friend may be regarded as the masterpiece of Nature."

President Goodell was a man of deep, strong and active humanitarian sentiments. He knew what it cost to be patriotic in the true sense of the word, in "times that tried men's souls," and his interest in his old companions in arms was green and fresh to the last. He was a member of the Loyal Legion and of the Edwin M. Stanton Grand Army post, was commander at one time of the post and for many years a member of the relief committee. He looked after the memory of the dead with tender care; the unfortunate were always an object of his solicitude, and his apology for the old soldier, who had lost not a leg or an arm, but his self-control, is a fine bit of writing on a high plane of morality.

Insight as keen as frosty star
Was to his charity no bar.

He had a profound sympathy with the toiling millions
of earth, whose names are writ on water, who have done so

much for man and his advancement, and when talking of their situation would often repeat the lines of Bayard Taylor, which seem to have been favorites with him.

The healing of the world
Is in its nameless Saints. Each separate star
Seems nothing, but a myriad separate stars
Break up the night and make it beautiful.

He was very much interested in the views of Prince Kropotkin, especially in his articles on "Mutual Aid" which appeared in the "Nineteenth Century." In these articles the Prince brought out the fact that the great principle of mutual aid gave the best chance for the survival of those who best support each other in the struggle for life. He began with the lower animals and traced it through savagery, barbarism, and every stage of civilization. The wealth of illustration and the triumphant march of the argument cleared up some vexed questions in Goodell's mind and strengthened his optimistic views by showing that the realization of the golden rule was a part of Nature's plan.

His sympathies were not of a sentimental nature. There was hardly a movement for social betterment in his time in which he was not interested. But what he did was usually done quietly, with the hope to secure a better understanding of the case. His ideas of woman as wife and mother have been made sufficiently evident, but he did not confine her activities to those important functions and was desirous to illustrate her contributions to civilization in another direction. For this purpose he gathered materials for a paper on "Woman as an Inventor," but failing health compelled him to abandon the project for the time being.

In 1891, he called the attention of the Executive of the Commonwealth to the "sweating system," sending references, to which Governor Russell replied: "I thank you very much for your letter of March 9 with its references on the 'sweating system,' which I shall be glad to examine."

In his immediate environment he was a transcendent power of beneficent action, but this action was silent in its operations and shunned publicity. Indeed, he was one of those rare spirits, "who passing through the valley of Baca make it a well."

He was one of the most grateful of men, and his gratitude extended beyond the courteous or kindly act done personally to him to the heroes who had struck a blow for right, or ennobled life by a heroic deed or beautiful thought. This enabled him to appreciate every institution, or opinion, that had done anything to ennoble the lot of men. He probably thought that the monks were men "whose chief distinction was to be unmanly"; but he saw one phase of their life, and in his address on "The Influence of the Monks on Agriculture," he speaks of them as fellow workers. It was a luxury to do him a favor, not because he never forgot it, but because he made you feel that he stood on that high vantage ground where a "grateful mind by owing owes not."

He saw the beauty in the common relations of life, in noble conduct, in heroic deeds, in wide sympathies and in the aspirations of mankind. Of the invocation at the end of the Governor's Proclamation for the annual Thanksgiving, — "God save the Commonwealth of Massachusetts," — he said, "It always fills me with uncontrollable emotions, and I wonder how anybody can read it in public."

He loved to read that stirring Lyric of Brownell, "The Bay Fight," when "Farragut's Flag was flying," but he could never get beyond the passage beginning: "Up went the white." What follows is a vivid description of the sudden change that comes over brave men, all savage with fight, when they come to look at the cost of victory, the dead, the dying, the wounded, and think of the heartrending sorrows that come to men, women and little children in some far-away and once happy home.

Although not "a book man," or a collector of books, in the ordinary sense, he was a lover of books and familiar with the great masters of our speech from Chaucer to Tennyson. Literature was to him not so much an interpreter of nature and man, as a revelation of the widening possibilities of human life, of finer modes of feeling, and of nobler thoughts. Of the older writers, Edmund Spenser seems to have been a favorite, and as he entered the long picture-gallery of the "Faerie Queene," he felt as Milton did: "Our sage and serious Spenser is a better teacher than Scotus or Aquinas." The old dramatists, who are known to the great majority of modern readers only by name, were a mine in which he worked, and he made extensive studies of some of them. Massinger seems to have been his favorite. He possessed in a remarkable degree "retentiveness," which George Eliot calls "a rare and massive power, like fortitude." It is indeed a happy gift to be able to enjoy and profit by a good book and keep both the enjoyment and the profit as a perpetual inheritance. He had a remarkably retentive memory which served him well both in work and play. The scenes he had witnessed, the persons he had met, the heroic deeds and noble thoughts of which he had heard

or read, seemed to hang to it as clusters of grapes to their stem, always ripe and ready for use. But, more than this, he had a peculiar memory for queer things and odd scraps of poetry, old saws, bits of simon-pure nonsense, the blunders or unfortunate speeches of his friends, and he had an abrupt way of addressing them, suggested by some curious thing in the past. One of his students, now the president of an agricultural college, he usually accosted with some long German compound, as — “Constantinopolischerdudelsackspleikugesellschaft!”

While this love of literature left a charming impression upon his reports and addresses, and, as we have seen, was carried into the curriculum of the college, it made itself felt in another and very practical way. Year by year we find a statement in the annual report of the value of the library, and the statements grow stronger with advancing years. “What tools and stock are to the workman,” he says, “books are to the professor and students. The library is the right arm of the instructor and the most important factor in the education of the pupil. There is no one thing which conduces so powerfully to intellectual growth and activity in a college as a general and intelligent use of the library.” Again, “In its relations to education the library goes hand in hand with the instruction in the recitation room and is its strongest support. It touches the pupil and the teacher alike, and is the fountain-head from which each department draws its inspiration.” In the last report but one he says: “The library should be kept up to the very highest state of efficiency. It is really the pivot on which the whole college turns and should be the very centre of college life.” He acted for many years as librarian, and gave

a good deal of thought and the best part of his spare time to building up and strengthening the library along the lines of study pursued in the college. As the result of his untiring efforts it became one of the best equipped libraries for its purpose in the country, and one that the people of the Commonwealth have a just right to be proud of. Toward the last he began to call attention to its limited quarters and said that a new fire-proof building would be needed in the near future.

But his interest in libraries was not confined to that of the college. He lent a helping hand in building up the library of the town of Amherst. With this institution he was connected in various ways for twenty-seven years, and here as everywhere he was not a figure-head, or contented to give a little good advice, but a worker. It is said that the card-catalogue contains some seven thousand entries in his handwriting. He thought that the libraries of the land-grant colleges should be enriched by the publications of the government, and that so important a matter should not be left to the representatives of the various states in Congress but should be upon a firm basis. To accomplish this he commenced a campaign with great earnestness. In reply to his appeal Senator George F. Hoar writes:—

February 24, 1900

MY DEAR PRESIDENT GOODELL, — I think the Land-Grant Colleges should all be public depositories of public documents, and I will endeavor to have the pending bill so amended as to accomplish the purpose.

I am faithfully yours,

GEO. F. HOAR.

Many of the symbols of religion in common use were exceedingly distasteful to him on account of what seemed to him their coarse and vulgar materialism, and he did not possess the faculty of spiritualizing that which had no possible suggestion of the spirit. Of religion itself he said little and of theology nothing, especially in his later years. His early impressions on the subject were calvinistic in their tone and temper and would probably seem rigid from the standpoint of to-day. But Calvinism was in its best days one of the finest schools for the education of the domestic affections the world has ever seen, and his loyalty to the memory of his father and his teachings may have led to his reticence on this subject. During freshman year (November 14, 1858) he united with the church connected with Amherst College, and seems never to have severed his relations with it. But after his marriage, as there was no church of the denomination his wife preferred in town, a compromise was made and they worshiped at the Episcopal church. Although he was never a communicant he held several offices in the society and was clerk of the parish long after his position as president made it incumbent on him to attend services at the College chapel, although he always maintained that the college, being a state institution, should not be connected with any particular form of religion. There is every evidence that he was attracted by the preacher more than by any dogmas he might or might not teach. When a young man he used to attend, as opportunity offered, services at the West (Unitarian) Church, Boston, and he wrote that when his family heard of it they were both shocked and alarmed, but he said that he did not know that he was walking in the paths of Satan until they

told him. The truth was that the preacher's poetic interpretation of things and events, and the light he threw on the hidden beauty and inner meaning of the common relations of life, fascinated him. He was looking for what the preacher suggested concerning the significance and reality of daily life, rather than for either of the doxies, and he saw neither. His mind was so liberal that there was probably not a church in Christendom with whom he could not have worshiped, but it is very doubtful whether he would have united with any of them.

When asked what he thought of death, he replied: "It is a perfectly natural event and that is all we know about it." To funerals as usually conducted he had an instinctive aversion. His cheerful and hopeful nature recoiled from the amount of doleful and depressing Scripture commonly read, and the dark symbols of mortality so often exhibited were not in accordance with his feelings or thoughts on such occasions. "How easy," he said in going away from the funeral of one of his friends, "how easy it would have been to have selected some Scripture that would have cheered and comforted instead of that which was so chilly and heartless! It was enough to give one the nightmare."

It is easier to get a look at the true inwardness of the moral and religious tone of a man's mind and nature by what he loves than by what he says. In talking with a friend as they sat on the piazza of his home, the conversation turned on favorite passages in literature; and after the exchange of quite a number, he went into the library and brought out a copy of Edmund Spenser, and turning to the 8th Canto of the second book of the "Faerie Queene," read not without emotion the two opening stanzas: —

And is there care in heaven? And is there love
In heavenly spirits to these creatures bace
That may compassion of their evils move?
There is: else much more wretched were the cace
Of men then beasts. But O! th' exceeding grace
Of highest God that loves his creatures so,
And all his workes with mercy doth embrace,
That blessed Angels he sends to and fro,
To serve to wicked men, to serve his wicked foe.

“How oft do they their silver bowers leave,
To come to succour us that succour want!
How oft do they with golden pineons cleave
The flitting skyes, like flying Pursuivant,
Against fowle feedes to ayd us militant!
They for us fight, they watch and dewly ward,
And their bright Squadrons round about us plant:
And all for love, and nothing for reward.
O! why should hevenly God to men have such regard?”

A man who really feels what these lines express, — that there is an eternal guardianship of the individual and his highest interests by an infinitely wise and intelligent goodness; that the air of this world is filled with ministering powers and helpful judgments, — has arrived at a very high altitude of experience. Come what may, be it sunshine or storm, victory or apparent defeat, it is all the same to him. Cheerfulness, hopefulness and courage will inspire him to the work that is before him, and no stormy night, however dark, can quench the genial light that emanates from the thought of a living God in a living Humanity.

Henry Hill Goodell did the work of a true man. He was a brave soldier, an inspiring teacher, an able administrator, an active citizen, and a dear good friend. Into all these relations and duties he put a fine spirit of mingled cheerfulness, hopefulness and courage. The monuments he has

built in the hearts of his many friends may seem even now to be crumbling to the dust; but things are not as they seem; they will stand "while time and thought and being last and immortality endures." He was an important factor at the beginning of a great work destined to be of incalculable importance to a great people; and when its history is written he will appear as a wise and courageous pioneer and be assigned to his rightful place by an admiring and grateful posterity.

ADDRESSES

HOW THE PAY OF A REGIMENT WAS CARRIED TO NEW ORLEANS¹

You have done me the honor to ask me to address you to-night on some personal incidents connected with the late war, and I accept the more gladly because, when those stirring scenes were being enacted, you who sit before me to-night were only a possibility and had not then become an actuality. It seems hard to believe that a generation has passed away — a whole generation of breathing, speaking men; and when another thirty years has gone, there will remain few if any survivors to tell the story of those days. It is fitting then, before the whole has faded into a dream of the past, enveloped by that haze which time eventually throws round everything of bygone times, to try and recall some few of its features. What was worth fighting for during four years is worth talking about now — not boastingly, but reverently, forever and forever and forever.

If law and order, honor, civil right —

If they wan't worth it, what *was* worth a fight?

Happily all strife is ended. The loyal common sense of the nation demands and will have a real peace, that means

¹ This address was prepared for the Grand Army post in Amherst, and was afterwards repeated, with some alterations, at the request of the students of the Agricultural College. As here printed it was delivered to the students.

a peace of political life, not the peace of political death. "No North! No South! No East! No West! But one people," — as our lamented Governor, in his matchless address at Chattanooga, puts it, — "but one people, animated by one purpose as splendid as ever the heart of man conceived, — with one destiny, so grand and high that it fills the future with a glory such as the sons of men never looked on before."

Old Homer in his blindness understood this when he put into the mouth of the gallant Trojan these words: "Tell me not of auguries. Let your birds fly to the East or to the West. I care not in this cause; we obey the will of Zeus who rules over us all, and our own best omen is our country's cause."

Did you ever think how large a part sentiment plays in the great crises of the world? In the ordinary affairs of life one acute Yankee peddler mind is worth more for service to his day and generation than forty poetic souls; but when the storm and strife of politics split states, and we are where steel and not gold will get us honorably and honestly out, and the world is war, then it is that the sentimental side of human nature, that sentiment that poets and thinkers feel, steps to the front and leads where the peddler nature dares not lead the way. The men who hold the widest sway in the hearts of humanity, who have defended liberty when assaulted, who have poured oil and healing balm into her wounds after battle, are the men of this sort, men of this deep, poetic instinct, this moral tenderness, this appreciation of the immortal. It is all that survives of the influence of Greece and Rome, of every ancient state. Sparta, a land of soldiers and slaves, gave us nothing; but the airy-minded

Athenian, the antique dreamer, holds the ear and the eye of the race to-day. Philip and his phalanx drove Demosthenes to death; while Demosthenes touches the lips of every fiery-souled orator that has ever stirred us to tears or rage. It is Plato's page against the sword of Sparta. It is the difference between Hamilton, the financial savior of a poor and struggling nation, and Jay Gould, the mere dancing bear of a stock-market, — the statesman *versus* the speculator. It is Napoleon at Wagram, riding up and down his shot-riddled ranks to save his crown, as opposed to Winthrop or Shaw leading the assault to save his country. It is the man who thought and fought for all time as opposed to the man who fought only for himself and his little hour. It is spirituality against sordidness; it is high thoughts against low; it is the visible against the invisible; it is the dollar against the whole duty of man; it is the world and its baseness against heaven and its purity.

There has been a great amount of nonsense written about the war and its heroes. In books, war is most dramatic and poetic reading; in life it is horrid cruelty, pure, unadulterated cruelty — the savagery of wild beasts. The harvest blackens beneath its breath, the sweet, fair flowers cover and pale at its approach. The springing grass is crushed under the ceaseless roll of artillery wheels, or is dyed a crimson red, drunk with the blood of heroes. Leonidas and his brave three hundred, dark with the dust and blood of conflict, — that was real war, and yet fair ladies who have read their story with kindling eyes and burning cheek would have thought them no lovely sight in their hour of travail. The hero of a Sunday-school book is sometimes a muff or a milk-sop, sometimes a fair ideal; but the hero of a battle-

field, grimed with powder, ay, sometimes black with guilt, is life, — half-humanities, half-brutalities. Shakespere makes Norfolk in the play say: —

“As gentle and as jocund, as to jest
Go I to fight.”

There are natures, I suppose, occasionally, who really feel the joy of conflict and go as jocund to a fray as to a feast; but in my heart of hearts I cannot help suspecting them. Thank heaven! they are few and far between. Nobody sane and fairly intelligent ever went out to try conclusions with death in this dancing humor, and the heroism of the boys in blue had little of pride and pomp, of sounding music and streaming banner and “Vive l’Empereur” boisterousness about it. No! there was nothing of the kid-glove review or pomp and finish of a dress parade about their battles. With faces drawn and gray, with heart in mouth and pulse beating like a trip-hammer, men stood and fought, wondering whether they could possibly hold on a single moment longer, wondering whether it were possible they could ever get out alive, and yet fixing their unyielding feet as firmly in the earth as a badger’s claws and making a badger’s bitter fight, simply because it was the hard but single road to their full duty. Homely heroes they were, but as genuine specimens as ever fought at the front and fell where they fought.

It is not pleasant to think that a man with heroism enough to rally a losing fight by personal exposure should not be noble all the way through, but human nature is often like a pocket-mine out of which may come great nuggets, but no continuous yield. So the man who astonishes you

by taking his life in his hands and heroically exposing it may often disappoint you by sordidness when you expect continuous and consistent sacrifice. There was none of the romance of historical heroism about our boys: in camp there was something of the meanness, something of the hypocrisy, something of the cowardice and blatant boasting found among mankind out of camps; but this was exceptional where suffering and privation and peril were daily probing every man to the very marrowbones of his manhood. There is sturdy, admirable manliness in dying bravely for error, but there is more than manliness, there is magnificent moral sense, in dying for truth. Courage alone is not a patent of nobility, for Macbeth, steeped to his lips in crime, teemed with valor, with desperate, Satanic, self-preservative, not self-abnegating instinct. Martyrdom is of itself no proof of morality; many a so-called martyr's ashes are not worth collecting; the smoke of his sacrifice only vexed the sweet air of heaven, and his blood was the seed of no church that was worth humanity's sustaining.

The poor drunken wretches in tattered clothes, reeling through our streets to-day, but wearing the button of the Grand Army of the Republic, are not pleasant objects to contemplate and are too often dismissed with sneer and scorn. But never forget the debt of gratitude you owe them. Life was just as dear to them as to you, but they risked it. Death was just as much an object of fear to them as to you, but they dared it. And for what? For a mere bit of sentiment? For a bit of bunting bearing a square of blue, sown with stars, and barred with stripes of red and white? No! not that. But for an idea, a principle, eternal as the everlasting hills, — for right, for justice, for humanity. Forgive

them then for the sake of the victory they won. Forgive them for the blood they lavishly poured out. Forgive them for the lives they freely offered.

Martyrs for freedom cannot die.

When marches end, when strifes are o'er,
In deathless deeds they live, whose sleep
The roll-call shall disturb no more.

I have wandered far from my subject, but I could not help giving expression to the thoughts that have so often burned within me, as sitting on the chapel stage I have looked down into your faces and realized how little you could possibly know or feel the great heart-throbs of your country during the years 1861 to 1865. But you have asked me for some personal reminiscence, and discarding those of general interest, I have selected an incident which may be entitled, "How the pay of a regiment was carried to New Orleans."

It was the spring of 1863, and General Banks had inaugurated the campaign which ended in the capture of the last rebel stronghold. We had marched to the very out-works of Port Hudson and engaged the Confederate forces on that historic night, when, lashed to the main-top high above the boiling surges, stout-hearted Farragut drove his vessels through the storm of shot and shell that was hurled upon him from the heights above, and cut the rebel communications between Port Hudson and Vicksburg. These two fortified places were the only ones left on the Mississippi not in our hands. Grant was already hammering at Vicksburg, but before Port Hudson could be invested, it was necessary to dispose of General Taylor and his forces,

who from their position in the south could fall upon our unprotected rear or make a dash for New Orleans. Returning then to our camp at Baton Rouge, after a few days' rest, we were suddenly divided into two forces, one marching down through the country to engage the enemy at New Iberia, and the rest of us sent round by water and up through the Atchafalaya to intercept and cut them to pieces.

It was only a partial success. Driven from their position in Fort Bisland, they fell upon us in their retreat before we were fairly in position, and held us in check while the whole army slipped by. Then commenced the long pursuit, enlivened by daily skirmish and fighting, which lasted from the shores of the Gulf to Shreveport in the extreme northwestern corner of the State, where they were driven across the border into Texas.

It was on this march that the incident occurred which I am about to narrate. We had been marching all day, in fact from before the dawn, trying to reach the Bayou Vermilion before the enemy could destroy the bridge. Men fell out by the score, but still we hurried on with all the speed our wearied limbs could support. Just as it was growing too dark to see, a battery opened upon us and there was a sharp charge of cavalry. We were hastily thrown into position to receive them, but in an instant, wheeling, they had dashed across the bridge, destroying it in our very faces before it could be prevented.

The next day was Sunday, and while we camped there, waiting for the construction of a new bridge, about half the advance division took the opportunity to strip and go in bathing. Suddenly, without an instant's warning, a troop of cavalry dashed down the opposite bank and opened fire

upon us. Such a spectacle never before was seen. The long roll was sounding, and naked men in every direction were making a dash for their guns, trying to dress as they ran. Some, with their trousers on hindside before, did n't know whether they were advancing or retreating and ran the wrong way; others, with simply a shirt and cap, were trying to adjust their belts. Officers were swearing and mounted aides were dashing about trying to bring order out of confusion. It was the foundation of the story Kipling tells of the parade after the taking of Lungtungpen. "Thin we halted and formed up, the wimmen howling in the houses and Lift'nint Brazenose blushin' pink in the light av the mornin' sun. 'T was the most ondasint parade I iver tuk a hand in. Foive and twenty privits an' a officer uv the line in review order, an' not so much as wud dust a fife betune 'em all in the way of clothin'. Eight av us had their belts an' pouches on; but the rest had gone in wid a handful of cartridges an' the skin God gave thim. They was as nakid as Vanus."

The next day we were ordered to Barrett's Landing to act as guard for a steamer coming up through the bayous with supplies, and here my story properly begins.

It was April 22, 1863, and the regiment, exhausted by the conflict of the 14th and the rapid march ensuing, following hard upon the track of Taylor's flying forces, from Franklin on to Opelousas, was resting at Barrett's Landing, when suddenly the whole camp was thrown into a ferment and fever of excitement by the news that the paymaster had arrived and would be at headquarters at twelve o'clock. Oh, welcome news to men who had been without pay for six months! How the eye glistened, and the mouth watered

for the leeks and fleshpots of Louisiana! What visions of sutler's delicacies opened up once more to those whom *long tick* had gradually restricted to a Spartan diet of hard tack and salt pork! What thoughts of home and the money that could be sent to loved ones far away, suffering perhaps for lack of that very money! But how to do it — there was the question. Here we were in the very heart of the rebel country, two hundred miles at least from New Orleans, in the midst of an active campaign. No opportunity to send letters except such as chance threw in the way, and no certainty that such letters would ever reach their destination. Added to this came the order to be ready to march at four o'clock. Whither we knew not; but the foe was ahead, and our late experience had taught us that life was but an uncertain element and that a rebel bullet had a very careless way of seeking out and finding its victims.

In the midst of all the bustle and confusion, the sergeant-major came tearing along through the camp, excitedly inquiring for Lieutenant Goodell. That estimable officer, I am sorry to say, having received no pay, owing to some informality in his papers when mustered in from second to first lieutenant, had retired into the shade of a neighboring magnolia tree and was there meditating on the cussedness of paymasters, mustering officers, the army in general. In fact everything looked uncommonly black, and never before had he so strongly believed in universal damnation. To him, then, thus communing, came long-legged Symonds, the sergeant-major, and said: "You will report for duty at once to head-quarters. You are directed to receive the pay of the regiment and proceed forthwith to New Orleans,

there to express it home, returning to the regiment as soon thereafter as practicable."

Gone at once were my sulks, — vanished in an instant my ill-humor, black demons and everything. Though I could not help wondering how in all creation I was going to perform a journey of several hundred miles, that would occupy a week at least, without a cent of money in my pocket. A clerk was detailed to assist me, and for the next hour I counted money over a hard-tack box, jamming it away instantly into my haversack, while he entered in a little book the amounts received from each person, the sums given to pay for its expressage, and the addresses to which it was to be sent. No time to make change. Even sums were given, counted, and tucked away with a rapidity which, it seems to me now, could not have been equaled even by the deft cashier of our own First National.

At the landing was a little stern-wheel steamer, captured from the rebels, which was to leave for Brashear City in an hour or two. The sick and wounded were hastily transferred to it, and as the regiment marched off, I stepped on board, with my precious haversack, now swollen out to unwonted proportions. Not a stateroom, not a berth was to be had. There was no safe in which I could deposit valuables. Too many knew what I was carrying, and I dared not for an instant lift the weight from my shoulders, or remove my sword and pistol. Like Mary's lamb, where'er I went, the haversack was sure to go.

Never shall I forget the beauty of that sail, and, but for the feeling of distrust and suspicion that made me look upon every man that approached me as a personal enemy, I should have thoroughly enjoyed it. We were dropping

down one of those little bayous that intersect the State in every direction. The spring freshets had swollen the stream and set its waters far back into the forests that lined its banks on either side. Festoons of Spanish moss drooped like a mourning veil from bough to bough. Running vines with bright-colored sprays of flowers twined in and out among the branches of the trees. The purple passion flower flung out its starry blossoms to the world, the sign and symbol of a suffering Saviour, — while the air was heavy with the scent of magnolias and yellow jessamines. Crested herons, snowy white, rose from the water, and, stretching their long necks and legs out into a straight line with their bodies, winged their flight above the tree-tops; pelicans displayed their ungainly forms as they snapped at the passing fish and neatly laid them away for future reference in their pouches; strange birds of gaudy plumage flew from side to side, harshly screaming as they hid themselves in the dense foliage. Huge alligators sunned themselves along the shore, or showed their savage muzzles as they slowly swam across our path. Frequently, at some sharp bend, it seemed as if we must certainly run ashore; but, the engine being reversed, the current would swing the bow round, and by dint of hard pushing with poles, we would escape the threatened danger, and start again in our new direction.

Sunset faded into twilight, and twilight deepened into the darkness and silence of a Southern night, — and then the entire loneliness and responsibility of my position suddenly overwhelmed me. I had no place to lie down, and hardly dared sit, for fear of falling asleep. It seemed as though I could hear whispers behind me, and every now and then I would catch myself nodding, and wake with a

cold chill running up and down the small of my back, as I felt sure that some unlawful hand was tampering with my burden. With the coming of the dawn, I breathed more freely, but the day seemed interminable, and it became a very burden to live. Twice we broke down, and tying up to a friendly tree repaired the damage. Night came again, and found us still miles away from our destination. It was horrible. I walked the deck — drank coffee — pinched myself — ran pins into my legs. “Oh, if I can only keep awake!” I kept repeating to myself. But at two o’clock in the morning we broke down again, with the prospect of being detained some hours. I knew that, if I did not reach Brashear City by seven o’clock, I should be another dreary day on the way, and lose my connections with the single train for New Orleans. Time was an element of importance, for I should lose the mail steamer for New York and be delayed in my return to the regiment, which I had left in the heart of Louisiana, marching onward — I knew not where, but with faces set towards the North.

Finding that we were distant from eight to twelve miles across country, according to the different estimates, I determined to make the attempt to reach it on foot. Any danger, anything seemed preferable to staying on the boat. With the first breaking of the dawn, when I could get my bearings, I slung myself ashore. A private in my regiment, discharged for disability, begged to accompany me. With weapons ready for instant use, we pushed along, afraid of our own shadows, looking for a lurking foe behind every bush; and when some startled bird suddenly broke from its covert, the heart of one, at least, stood still for a moment, and then throbbed away like a steam-engine. If a man was

seen, however distant, we dropped to cover and watched him out of sight before we dared move. For the first mile our progress was very slow — now wading through water, now sinking in the mud, floundering about as best we could, while the mosquitoes and gnats settled down on us in swarms, uttering a triumphant buzzing as though they recognized the fact that they had fresher blood to feed on than that offered by the fever-stricken victims of the South, and were determined to make the most of their opportunity. But the open country once reached, we lengthened out our steps and struck into a six-mile gait. Soon my companion began to falter and fall behind. But I could not afford to wait. Telling him that I presumed he was all right, but I could not run any risks, I stood him up by a tree, and taking his gun, marched off a couple of hundred yards, then laying it down, I shouted to him to come on, and, setting off at the top of my speed, saw him no more. Whether he ever reached his destination, or whether — wandering helplessly along — he was swooped down upon by some guerilla and led away to starve and die in a Southern prison, I did not learn for many years. But at the last reunion I attended, having been called on to respond to the toast, "The postal service of the regiment and what you know about it," at the conclusion of my remarks, a stout, grizzled veteran grasped my hand and said: "Loot, I'm glad to see you. I thought it pretty cruel of you to leave me alone in Dixie, but you had warned me beforehand, and I guess you were right."

Avoiding the houses and striking across the fields, I made the last part of the way at full run, and drew up panting and exhausted at Berwick Bay shortly after six. Not a moment

was to be lost. I could hear the engine puffing across the waters. Shouting to a darkey who seemed to rise up preternaturally out of the ground, I ordered him to row me over; and a more astonished man I think I never saw, than he was, when, on reaching the opposite shore, with but ten minutes to spare, I bolted from the boat without a word and started on the run for headquarters. The general was asleep, but an aide carried in my pass, signed by General Banks, brought it back countersigned, and in five minutes more I was aboard the train moving on to New Orleans.

Of this part of my journey I have a very indistinct remembrance. My impression is that I dozed whenever I sat down, and I was so dog-tired I could hardly stand. I had had nothing to eat since the night before, and was faint and exhausted with hunger and my exertions. Nothing but the special training my class had taken in the gymnasium during the previous year for just such an emergency pulled me through the long run and long fast following it. It was only a run of one hundred miles, but I think we must have stopped to wood and water at every cottonwood grove and swamp along the way; and I remember at one of these periodical stops going out on the platform and there falling into an altercation with a little red-headed doctor, who — whether he had scented my secret or not, with that divine intuition for discovering the hidden peculiar to the craft, — had made himself officiously offensive to me, and now wanted to borrow my revolver to shoot a copper-head that lay coiled up by the side of the track. Refused in that, he next wanted to examine my sword; and when, under some trifling pretext, I abruptly left him, and, going inside the car, sat down as near as possible to a bluff-looking lieuten-

ant, whose honest face seemed a true indication of character, his wrath knew no bounds and was quite out-spoken. Peace to your injured spirit, oh fiery-headed son of Esculapius, if you are still in the land of the living! I here tender you my humble apologies. Doubtless you intended nothing more than to compare the efficiency of my leaden balls with one of your own deadly boluses, or to see how my cleaver compared in sharpness with one of your own little scalpels. But at that particular time I should have been suspicious of my own brother had he desired to inspect or use my arms.

It was late Saturday afternoon, when, tired, and faint, the ferry landed me in the city. Pushing straight to the office of the Adams Express Company, I told them I had the pay of a regiment to express home, and wanted five or six hundred money-blanks and envelopes. I shall never forget the look of incredulity with which the clerk looked at me. I was dirty and ragged, just in from the front — wore no shoulder-straps, for we had been ordered to remove them and diminish the chances of being picked off by the sharp-shooters, but had sword and pistol and an innocent-looking haversack hanging at my side. However, he said not a word but passed over the papers.

My next adventure was in a saloon, where, on calling for a drink of whiskey, I was informed that they were not allowed to sell to privates. On my throwing down my pass signed by General Banks, the courteous keeper acknowledged his mistake, and invited me to take something at his expense. Immediately after supper, to which — it is hardly necessary to say — I was accompanied by that confounded haversack (I fairly loathed it by this time), I retired to my

room, locked the door and went to work. Excitement kept me up and by two o'clock everything was done; the money counted and placed in the envelopes, and the blanks filled out, and the footing correctly made. Then only did I know how much I had carried with me, and how precious were the contents of my haversack. Barricading my door with the table, and wedging a chair in between it and the bed, I thrust the haversack between the sheets, slid in after it, laid my revolver by the pillow, and in an instant was sound asleep. The next morning, on going down to breakfast, I innocently inquired of the clerk in the office if he would give me a receipt for valuables. "Certainly," was his smiling rejoinder, "for how much?" — "\$24,346," I replied, and half-opening my haversack, showed him the bundles of express envelopes, explaining that it was the pay of a regiment. "Where did you keep this last night?" was the next question. "In my room." — "You d— fool, it might have been stolen." — "True, but I thought it would be safe enough, and besides I did not know how much I had."

Breakfast over, I repaired at once to the office of the express company, and by noon, with my receipts in my pocket, I stepped forth feeling as if a gigantic load had been rolled from my shoulders.

Of my journey back there is no need to speak: but suffice it to say that two or three weeks thereafter, one night as the sun was setting, I stood with beating heart on the levee, outside of Simsport on the Red River, waiting for the coming of the regiment on its march down from Alexandria. Column after column passed and still I waited. But suddenly I caught the roll of drums and there came a dimness over my eyes, for I recognized familiar forms. The

colonel riding at the head — the little drum-major — the colors and each well-known face. As they came up and I saluted, some one recognized me and called my name. Instantly the cry, "Lieutenant Goodell has come!" swept down the line, and with one mighty shout the boys welcomed back the bearer of their pay. That night I went from campfire to campfire and gave to each orderly sergeant the receipts for his company. Of all that money only one envelope went astray, and the express company made good the loss.

But one more incident remains to be told, and then my story is done. It seems that, owing to my delay in returning to the regiment (having to wait for transportation more than a week), the men began to get uneasy, and finally one day a man hinted that I had made off with the money. Instantly the little drum-major, whom I had once rescued in an evil plight in Hartford where we were encamped, leaped at him, knocked him down and gave him such a licking as he had not had since his childhood days, when, stretched across the maternal knee, he shed bitter tears, as the shingle sought and found him every time.

THE CHANNEL ISLANDS AND THEIR AGRICULTURE

THE subject assigned me to-night is the Channel Islands and their agriculture. There is no more interesting spot on the face of the globe, and none that displays sharper contrasts. Geographically belonging to France, territorially they form an outlying dependency of the British crown. Apparently most barren and unfertile of soil, they yield crops rivaling in richness those of the virgin plains of our own great West. Rent and torn by the waves that rush in upon them from the Atlantic, lashed by the reflux surge from the coast of France, and swept by the boiling tides that under favoring circumstances rise to a height of over forty feet, they find in the floating sea-wrack of the very waves which threaten their existence the chief element of their fertility. Lying at the very entrance of the English Channel, just where it broadens out and loses itself in the immensity of the ocean, and exposed to every wind that blows, they yet enjoy a climate so equable and mild that the flowers of the tropics bloom there the year round in the open air.

No less remarkable in their characteristics are the people. Calling themselves Englishmen, they yet speak a *patois* of French impossible to be understood by any one not native born, and compel its use in school and court. Blindly adherent to ancient law and custom, they have made themselves known the world over for the advanced position they have taken on all matters pertaining to agriculture. Jealously re-

sisting every encroachment upon their liberties, and so independent that all laws affecting them have first to be passed upon and approved by their own *States* before becoming valid, they yet are the most loyal of subjects and tenacious in their support of the crown. The last of the great French possessions united to England when William the Conqueror crossed the Channel and overthrew the Saxon dynasty, they have remained through all these years unshaken in their fidelity to the representatives of their hereditary sovereigns. Race, language, contiguity of territory, would seem to have allied them to Norman France; yet so slight was the bond that held them, that shortly after the separation we find this added petition in their litany: "From the fury of the Norman, good Lord deliver us." Undoubtedly in bygone ages, before subsidence had taken place, these islands formed a part of the continent, and were actually joined to France; but now they stand like sentinels, lone outposts, surrounded by rushing tides and raging seas, which in their ceaseless action have eaten out and swept away the softer and more friable rocks, leaving only a "fret work of those harder barriers that still resist attack, and are enabled to present a bold and serried front against their relentless enemy."

The Channel Islands are six in number, namely, Jersey, Guernsey, Alderney, Sark, Jethou and Herm, and lie one hundred miles south of England and fifteen from the shores of France, being well within a line drawn parallel to the coast, from the end of the peninsula on which Cherbourg is built. The two largest of these — Jersey and Guernsey — are the ones with which we shall concern ourselves to-night. Small in area, mere dots on the surface of the globe, they

yet have won for themselves a name and place in the agriculture of every civilized nation of the world. The first, some eleven miles in length by five and a half in breadth, covers an area of 28,717 acres; the second, nine and a half miles in length by six and a half in breadth, contains about 19,705 acres. Of these areas scarce two-thirds is land that can be cultivated, for we must bear in mind that the formation is mostly granite, rising in cliffs from two hundred to four hundred feet, with deep indentations and wide encircling bays where the sea has eaten into the shore. From the elevated crest to the water's edge is a "wide margin of descent upon which fertile soil cannot accumulate, and a poor and scanty pasturage, its only possible produce, is generally more or less overpowered by brake, gorse and heath."

As you approach the Jersey coast nothing more picturesque can well be imagined. Ten miles of granite cliff stretching along its northern exposure, two hundred and forty to four hundred and eighty-five feet in height, while on the south eight miles of similar formation rise from two hundred to two hundred and fifty feet, and against this the waters madly foam and break and dash their spray far up the sides, rending and rifting them in every possible manner, or wearing out dark chasms and overhanging arches. There results from this formation a general slope and exposure to the south very favorable to vegetation. Furthermore, the whole island is intersected from north to south by a succession of ravines or valleys, gradually widening and increasing in depth, and forming a natural channel for the small streams taking their origin in the springs which everywhere abound.

It has been said that the three primary elements necessary to the success of agricultural operations are skilful hus-

bandry, a well-constituted soil and a genial climate. All three of these requisites Jersey possesses in the highest degree. Though resting on a bed of primary rocks of granite, syenite, and schist, absolutely wanting in organic remains, yet the soil is a rich loam, varying in lightness with the character of the underlying stratum. Even in the bays, where the sand driven by the winds has encroached upon the soil, the land is so successfully tilled, that St. Clements Bay has won for itself the title of the "Garden of Jersey." The climate is one of the most equable and mild in the world. Rarely does it fall below the freezing point, and there is but one instance on record of its reaching 83 degrees. The ground seldom freezes more than an inch or two, and the slight snows serve to keep off the frost altogether. Winter there is none, but the spring is usually cold and late. The mean daily range of the thermometer is exceptionally small. Taking the average of ten years, it is found to be but 8.1 degrees. The days of summer are not very hot, but the nights are comparatively warm, and there is hardly any chill in the night air at any season of the year. There is no recorded climate, and probably no climate whatever in north temperate latitudes, on either side of the Atlantic, that presents so small a daily range of the thermometer. Such is the opinion of an enthusiastic traveler.

As a result of this, many kinds of plants and shrubs are at least a fortnight earlier than even in the warmer parts of England, and the ripening of fruit in the open air during July, August and September is invariably some days earlier than at Greenwich, although the summer is cooler than at that place. Another striking peculiarity, which doubtless has its effect upon vegetation, is the rainfall. Taking

the average of six years, rain is found to fall on one hundred and fifty days, but it most frequently occurs at night or early in the morning, seldom lasting through the day, thereby securing the maximum of sunshine. The mean annual rainfall is about thirty-three inches. Under these favorable conditions of temperature and moisture a flora that is almost tropical prevails. Fuchsias reaching the proportions of shrubs, rhododendrons twenty to twenty-five feet in height, araucarias, — or monkey-trees, as they are popularly designated, — oleanders, yuccas, palms, azaleas, and camellias flourish in the open air, while climate and soil appear to be particularly suitable for the cultivation of the dahlia. Finer specimens I have never seen. The laurestinus was in bloom in November, and fig trees and oranges were everywhere to be seen trained against the south walls of enclosures.

It is a climatic law that in all places where the mean temperature is below 62.6 degrees, the revival of nature in spring takes place in that month of which the mean temperature reaches 42.8 degrees. On the island of Jersey this occurs in February. This again is a very important factor in the agricultural development of the place, for the early spring and the proximity of the great markets of London and Paris enable the inhabitants to dispose of their produce at a great profit. It is no uncommon thing for a man to pay for a piece of potato land as high a rental as two to three hundred dollars an acre, and to sell his crop of four or five hundred bushels for \$1,000 or \$1,100. But this is not the end, for immediately after the gathering of the first crop the land is freshly manured and a second crop is planted, yielding from two-thirds to three-fourths the amount of the

first. These results can be secured only by the application of large quantities of manure. Barn-yard manure and also artificial fertilizers are used; but the main dependence is placed upon the vraic or sea-weed. The old legend runs: "No vraic, no corn; no corn, no cows; no cows, no bread for children's mouths." This is either washed ashore by the action of the waves, or, at the period of maturity, is separated by bill-hooks or sickles fastened to long poles and drawn in by rakes with a head two or three feet wide and handles twelve to twenty feet long. The cutting and gathering of the vraic is a general holiday, terminating usually in a frolic. It is only allowed twice a year: once in February, beginning with the first new or full moon and lasting five weeks; and again in June, beginning in the middle of the month and closing on the 31st of August. Whole families will frequently unite, and, going to some spot previously selected, work hard all day, the men standing up to their waists in water, using their unwieldy sickles and rakes, and the women and children dragging the prize up beyond the reach of the tide. With the coming of night the sea-weed is removed in carts, and then all hands, meeting at the house of some one of their number, spend the hours in dancing and singing. During the first four weeks of the summer cutting, only the poor, or those having no cattle, are allowed to gather this harvest of the sea. That cast up by the waves may be taken at all seasons by any person between the hours of sunrise and eight o'clock at night. About sixty thousand loads are gathered annually, valued for manurial purposes at about fifty cents per load. It is applied either fresh at the rate of ten loads to the acre, or in the form of ashes obtained by burning it, a load yielding

about three bushels of ash. There are two species of this vraic, the Fucus and the Laminaria, and the following analyses will give an idea of their value: —

ANALYSES OF VRAIC

	Laminaria digitata (Per cent)	Fucus vesiculosus (Per cent)
Water in the undried weed	82.00	71.00
<i>Dry Weed</i>		
Organic matter, per cent	70.11	80.36
Soluble ash	23.56	14.08
Insoluble ash	6.33	5.56
	100.00	100.00
<i>Composition of Soluble Ash</i>		
Sulphuric acid	2.13	4.17
Chlorides of Potash and sodium . . .	21.53	11.40
Potash	6.89	2.04
Iodine	0.48	0.01

The drift weed belongs to the Laminaria, of which there are two varieties, and the cut weed to the Fucus, of which there are three. The latter is considered the more valuable, perhaps from its containing a larger percentage of organic matter.

The population of Jersey, according to the last census, is a little over 65,000. The area of the island is, as already stated, 28,717 acres. Of this, only 19,514 are under cultivation, so that practically three persons are supported to each acre. It may not be uninteresting to note the acreage of the different crops, and compare it with the amount of produce exported. In 1891, the corn crops

(wheat, barley, oats, rye, beans, and peas) occupied 2,199 acres, wheat leading with 1,700; green crops, including potatoes, turnips, mangolds, cabbages, and vetches, 7,816, potatoes leading with 7,000; clover and grasses under rotation, 5,247; permanent pasture, 4,053; flax, 3; small fruits, 158; and uncropped arable land, 38. Horses numbered 2,360; cattle, 12,073; sheep, 305; and pigs, 7,618. In that same year there were exported, into England alone, 2,300 cows and calves, or a little over one-sixth the entire number; 25 tons of butter; 1,863,165 bushels of potatoes, an average of 266 bushels to every acre under cultivation; 86,000 dozen eggs; 74,969 bushels of fruit and vegetables, to the value of \$400,000; the whole footing up to the snug little income of \$3,700,000, to be distributed among the 2,600 farmers owning or cultivating land. It is a noticeable fact that, while the cattle were valued at £40,000, the potatoes were placed at £447,134, or eleven times that sum.

The above figures are equally applicable to Guernsey, except that there a greater amount of fruit is grown, the yearly export of grapes footing up to more than 500 tons. Tomatoes are raised in immense quantities for the London market, but no reliable statistics were available. As compared with our best varieties, they are very inferior in size and quality. The vines are trained up against the sides of the houses, and continue bearing sometimes more than one year. The principal fruits are grapes, apples and pears. Jersey cider was at one time so celebrated that the agricultural society of the Department of the Lower Seine in France sent over a commission to learn the methods of manufacture; but the apple trees are now giving way to the

potato, though still 30,000 to 40,000 bushels of the fruit are exported annually. Climate and soil seem especially adapted to the cultivation of pears, of which there are some fifty varieties grown, — *bergamottes*, *doyennes*, *beurrés*, etc. But the most remarkable are the *chaumontel*, whose fruit frequently reaches proportions that are truly wonderful. For fear you should think I am drawing on my imagination, permit me to quote from official records: —

“These pears are usually plucked about the 10th of October, but are not fit for use for several weeks, being in perfection about Christmas. Those weighing sixteen ounces are regarded as first-rate, and fetch good prices. Pears of this size average in value twenty-five to thirty dollars per hundred in the island markets; but as they diminish in size and weight the value falls rapidly, the numerous small fruit being considered only fit for baking, although in point of flavor they are little inferior. The largest and best grown fruit on record was raised at Laporte in Guernsey in 1849. It measured six and one-half inches in length, fourteen and one-half in girth, and weighed thirty-eight ounces. As a group of pears from a single tree, there is perhaps no more remarkable instance recorded than one occurring in the season of 1861, when, of five fruit obtained from one tree in the garden of Mr. Marquand of Bailiff’s Cross, Guernsey, four of them weighed together seven and one-half pounds. It is worthy of remark that in this case the tree, though usually prolific, bore only these five fruit. The pears in question weighed respectively thirty-two and one-half, thirty-three, thirty-one and one-half, and twenty-two ounces.”

Equally remarkable among the vegetables are the great

cow cabbages. They reach a height of eight to ten feet. I myself measured one that was over eleven, and at the agricultural rooms at St. Helier there is preserved the record of one whose stalk measured sixteen. It takes a year for these plants to mature. They are set in November or December, about two feet apart, and grow all through the following season. The ground is hoed up against them when they have reached a certain height, having been previously enriched with sea-weed. The leaves are stripped off as they become large, being used either for feeding cattle or packing butter, and the plants are left to spindle up with a small crown at the top. The stalks, which occasionally take on tree-like dimensions, are used as palisades for fences or poles for beans, but most frequently they are shellacked over or varnished and made into canes, selling readily to tourists at prices ranging from fifty cents to a couple of dollars.

From what has been said it will be readily conjectured that the potato is the chief crop. The greatest care is taken in the selection of seed, and they are handled as tenderly as the choicest fruit, each tuber being picked up separately and placed in an open crate, only one layer deep. In some sheltered spot or in a shed these crates are piled up one above the other till ready for use. When preparing for planting, these are placed in some warm corner and the potatoes allowed to sprout, selection being made of those shoots which have formed a healthy top and spring from a good eye. About twenty-two hundred-weight of seed per acre is used, being set about ten inches apart, and in rows some twenty-two or three inches wide. Cultivated in the open air, they are ready for market in April and May, but

with the glass-house system now in vogue they are matured much earlier. Previous to the inroads of the potato disease, which greatly affected the crops, it was no uncommon thing to have a yield of twenty tons to the acre, and the average was fourteen; but it has now dropped to ten or eleven. So great is the demand for these potatoes that few are retained for home use, and large quantities are imported from France into Jersey for consumption; but, owing to the early crop being exported at a very high price, and the French potatoes purchased when the price is lowest, the balance of profit remains very largely in favor of the island.

Some idea of the fertility of the soil may be formed from the following figures: Hay averages three and one-half tons to the acre; a good return of one-year-old clover is over four tons, of two-year-old not more than three and one-quarter; wheat averages thirty-five bushels, though in some favored fields the yield has reached sixty; mangolds fifty tons, occasionally reaching seventy; parsnips twenty-five to thirty; and carrots thirty. Wheat is sown in January, and that is followed by parsnips and potatoes; oats in February, and mangolds in April. The rotation of crops is a five-year one, namely, turnips, potatoes, wheat, hay, hay. The grass is top-dressed in January or February with sea-weed, and that is followed later in the season by an application of liquid manure. Everything is turned to getting the most possible out of the land; and a recent writer, with just a touch of sarcasm, remarks: "Jersey still remains a land of open-field culture, and yet its inhabitants, who happily have not known the blessings of Roman law and landlordism, and still live under the common law of Normandy, obtain from their land twice as much as the best farmers of England.

Besides their potatoes, they grow plenty of cereals and grass for cattle; they have more than one cow to each acre of meadows and fields under grass; they export every year, besides a large amount of dairy products, some 2,300 milch cows; and, on the whole, obtain agricultural produce to the amount of \$750 to each acre of the surface of the island."

So much has been said and written of late years respecting the cattle of Jersey that it would seem almost unnecessary to make mention of them. A few facts, however, in regard to their management and care, may not be uninteresting. In round numbers, twelve thousand are scattered over the island, but nowhere are large herds to be seen. Bunches of two or three, at most five or six, are found on the different farms, rarely more. This is easily accounted for by the small holdings of the farmers, the 19,000 acres of arable land being distributed among 2,600 owners. Of the entire number, according to the returns of 1891, 6,700 were cows and heifers in milk or in calf, 668 were two years and over, and 4,600 were under two years. Cows are considered in their prime at six and continue good until ten. After that they deteriorate rapidly. The first calf is usually dropped when the animal is two or under, and this has been offered as a reason for the small size of the breed. Cattle are allowed to remain out from May to October. After that they are housed at night, being driven in at four and let out at nine the following day. They are fed morning and evening, their ration being the same, three-fourths bushel of roots and a little hay, and are milked three times a day during the summer. When out at pasture they are never allowed to roam, but are close tethered by a rope about four yards in length. Three times a day the stake to which the tether

is attached is moved eighteen inches on a line parallel to the side of the field. In this manner the most economical use is made of the pasturage, and every blade of grass is cropped close. The whole care of the cattle devolves upon the women, who make great pets of them. As a result, they become singularly gentle and docile.

Since 1789, when a very stringent law was passed, the breed has been kept absolutely pure, a fine of one thousand dollars being imposed for every head of foreign cattle introduced, besides confiscation of cattle and boat, the cattle confiscated being killed on the spot, and the meat distributed sold for the benefit of the poor of the parish where it is seized. In addition to the above heavy fine imposed on the captain, each sailor is liable to a fine of two hundred and fifty dollars, or in lieu thereof to six months' imprisonment. Up to 1833 no one had thought of improving the breed by any system or fixed rule, but on the formation of the Royal Jersey Agricultural Society, a scale of points for judging cattle was adopted, premiums were offered and the following regulations laid down: "Any person withholding from the public the service of a prize bull shall forfeit the premiums; and all heifers having had premiums adjudged them shall be kept on the island until they have dropped the first calf." These efforts and the increasing demand for the stock have led to the improvement of the breed in certain definite directions. The following scale of points has been adopted by the society:—

RATIO SCALE OF POINTS FOR BULLS	
Articles	Points
1. Registered pedigree	5
2. Head fine and tapering, forehead broad	5
3. Cheek small	2

4. Throat clean	4
5. Muzzle dark, encircled by light color, with nostrils high and open	4
6. Horns small, not thick at the base, crumpled, yellow, tipped with black	5
7. Ears small and thin, and of a deep orange color within . . .	5
8. Eyes full and lively	4
9. Neck arched, powerful, but not coarse and heavy	5
10. Withers fine, shoulders flat and sloping, chest broad and deep .	4
11. Barrel-hooped, broad, deep, and well ribbed up	5
12. Back straight from the withers to the setting on of the tail .	5
13. Back broad across the loins	3
14. Hips wide apart and fine in the bone	3
15. Rump long, broad and level	3
16. Tail fine, reaching the hocks, and hanging at right angles with the back	3
17. Hide thin and mellow, covered with fine, soft hair	4
18. Hide of a yellow color,	4
19. Legs short, straight and fine, with small hoofs	4
20. Arms full and swelling above the knees	3
21. Hind quarters from the hock to point of rump long, wide apart, and well filled up	3
22. Hind legs squarely placed when viewed from behind, and not to cross or sweep in walking	3
23. Nipples to be squarely placed and wide apart	5
24. Growth	4
25. General appearance	5
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Perfection	100

No prize to be awarded to bulls having less than 80 points. Bulls having obtained 75 points shall be allowed to be branded.

RATIO SCALE OF POINTS FOR COWS AND HEIFERS

Articles	Points
1. Registered pedigree	5
2. Head small, fine and tapering	3
3. Cheek small, throat clean	4
4. Muzzle dark, and encircled by a light color, with nostrils high and open	4

5. Horns small, not thick at the base, crumpled, yellow, tipped with black	5
6. Ears small and thin, and of a deep orange color within . . .	5
7. Eye full and placid	3
8. Neck straight, fine, and lightly placed on the shoulders . . .	3
9. Withers fine, shoulders flat and sloping, chest broad and deep .	4
10. Barrel-hooped, broad and deep, being well ribbed up . . .	5
11. Back straight from the withers to the setting on of the tail .	5
12. Back broad across the loins	3
13. Hips wide apart and fine in the bone; rump long, broad and level	5
14. Tail fine, reaching the hocks, and hanging at right angles with the back	3
15. Hide thin and mellow, covered with fine, soft hair	4
16. Hide of a yellow color	4
17. Legs short, straight and fine, with small hoofs	3
18. Arms full and swelling above the knees	3
19. Hind quarters from the hock to point of rump long, wide apart and well filled up,	3
20. Hind legs squarely placed when viewed from behind, and not to cross or sweep in walking	3
21. Udder large, not fleshy, running well forward, in line with the belly, and well up behind	5
22. Teats moderately large, yellow, of equal size, wide apart and squarely placed	5
23. Milk veins about the udder and abdomen prominent	4
24. Growth	4
25. General appearance	5
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Perfection	100

No prize shall be awarded to cows having less than 80 points.

No prize shall be awarded to heifers having less than 70 points.

Articles 21 and 23 shall be deducted from the number required for perfection in heifers, as their udder and milk veins cannot be fully developed.

We have thus far dealt only with open-air cultivation, but there is another phase, still more interesting, in which everything is grown under cover. Until the glass-houses of

Jersey and Guernsey have been visited, no one can fairly appreciate the possibilities of intensive gardening. Originally erected for the purpose of growing grapes, they now combine that with the raising of all crops grown in the open air. These glass shelters are of the simplest construction, in most cases mere frames of glass and wood, sometimes heated, but oftener not. But they yield enormously, crop after crop, throughout the entire season. Hardly is one out of the way than another takes its place. Before the potatoes are out of the ground, beet or broccoli is set between the rows, etc. The whole island of Guernsey is dotted with them: here mere lean-tos against the sides of the buildings, there more substantial structures in the fields, or again rising tier upon tier up the steep hillsides. The grape crop, of which the annual exportation from the island of Guernsey is over five hundred tons, valued at some two hundred thousand dollars, and on which the inhabitants chiefly relied for an income, has now become a side issue, and is entirely eclipsed by the immense quantities of potatoes, tomatoes, peas, beans, and carrots raised under these shelters. It was not my good fortune to visit these glass-houses in the early season: but in November, on the island of Jersey, at Goose Green, in a house some nine hundred feet long by forty-one or two broad, I saw them ploughing down the centre while they gathered tomatoes from the vines on either hand, and picked the pendent bunches of grapes from the trellis-work on the sides.

No more interesting description of the vegetable houses has been written than that by Prince Kropotkin, and you will, I am sure, bear with me for a few moments if I quote from his recent article on the "Possibilities of Agriculture."

“I saw three-fourths of an acre, covered with glass and heated for three months in the spring, yielding about eight tons of tomatoes and about two hundred pounds of beans as a first crop in April and May, to be followed by two crops more during the summer and autumn. Here one gardener was employed, with two assistants; a small amount of coke was consumed; and there was a gas engine for watering purposes, consuming one dollar’s worth of gas every month. I saw again, in cool greenhouses, pea plants covering the walls for a length of a quarter of a mile, which already had yielded by the end of April thirty-two hundred pounds of exquisite peas, and were yet as full of pods as if not one had been taken away. I saw potatoes dug from the soil in April to the amount of five bushels to the twenty-one feet square, and so on. And yet all that is eclipsed by the immense vineries of Mr. Bashford in Jersey. They cover thirteen acres, and from the outside these huge glass-houses and chimneys look like a factory. But when you enter one of the houses, nine hundred feet long and forty-six feet wide, and your eye scans that world of green embellished by the reddening grapes or tomatoes, you forget the ugliness of the outside view. As to the results, I cannot better characterize them than by quoting what Mr. W. Bear, the well-known writer upon English agriculture, wrote after a visit to the same establishment; namely, that the money returns from these thirteen acres ‘greatly exceed those of an ordinary English farm of thirteen hundred acres.’ The last year’s crops were twenty-five tons of grapes (which are cut from May till October, ranging in price at wholesale from one dollar a pound to eighteen cents), eighty tons of tomatoes, thirty tons of potatoes, six tons of peas, and two tons of

beans, to say nothing of other subsidiary crops. On seeing such results one might imagine that all this must cost a formidable amount of money; but not so. The cost of Mr. Bashford's houses, most excellently well built, is only \$2.34 per square yard (heating pipes not taken into account); and all the work is done by thirty-six men only; three men to each acre of greenhouses seems to be a Guernsey average. As for fuel, the consumption amounts to no more than one thousand cart-loads of coke and coal. Besides, one can see in the Channel Isles all possible gradations, from the well-constructed greenhouses just mentioned, to the simple shelters made out of thin planks and glass, without artificial heat, which cost only ten cents per square foot, and nevertheless allow of having the most surprising crops quite ready for sale by the end of April. Altogether, the glass-house is no more a luxury. It becomes *the* kitchen garden of the market gardener."

One of the most noticeable features of these islands is the appearance of thrift everywhere discernible. Everything speaks of ease and prosperity; paupers there are none. The poor are rarely seen. Roadside, garden, and house alike betoken comfort and sufficiency. Not only are the outskirts of the town filled with substantial buildings, but the homes of the farmers are solid granite structures, it may be with cement floor instead of boards, the roofs thatched or tiled, showing red against the dark, rich background of foliage, but all comfortably, neatly furnished, the windows curtained with cambric or lace, while outside they are bowered in roses, jasmines, or myrtles. There is a feeling of home, of ownership, of pride in possession that strikes one at once; and who that has once enjoyed the simple, hearty hospitality

of those kindly people will ever forget it? The loaf of cake proffered by the good housewife, with a half apology perhaps for its not being as light as it ought to be; the "jersey wonder" (a species of doughnut) melting away in the mouth before one fairly knows it is there; the pitcher of cider or bottle of wine, — everything is freely offered, and the guest made welcome to the best. The exquisite neatness which characterizes the house is just as plainly visible in its out-door surroundings. The well-kept walks, the neat, orderly barns and sheds, the gardens with their flowers and fruit, and, above all, the trim, cleanly roads, all bespeak the same care and thrift. Everything is turned to account; the droppings of the horses and cattle along the roads are carefully swept up and placed on the manure heap, the twigs broken by the gales are picked up and put away for fuel, and the leaves falling from the trees are gathered together and carried away to enrich the land. Nothing is lost, and the waste, except in questions of labor, is reduced to a minimum. But the tools are heavy and clumsy, and to this day most of the farmers work their ground with a plough that has a wooden mould-board with an iron point, the horses being hitched tandem.

The roads and lanes deserve special mention. The former are well built, and as a general thing follow the windings of the valleys, while branching from them in every direction are an infinity of lanes, so narrow that at intervals bays are constructed to allow teams to pass each other. No weeds along the margins are to be seen, for both road and lane are macadamized and bordered, sometimes by stone walls or well-trimmed hedges, but oftener by earth-banks, upon or beside which are rows of trees. These high, earthen banks,

taking the place of fences, with trees growing on top, and covered all over with the greenest and most luxuriant of ivies, give to the lanes the appearance of trenches cut in the soil, and this effect is heightened by the arching of the trees overhead and the interlacing of their branches, which even in midday cast a shade that is almost twilight; and for miles you ride along through these leafy bowers, sheltered from the sun, protected from the wind, listening to the song of birds, till at last the vista opens, and suddenly you see the waves rolling madly in, and catch the thunders of the surf upon the granite cliffs.

The question is often asked, To what do the Channel Islands owe their prosperity. Given an equable climate, a fertile but not rich soil, and a skilful husbandry, and you have the three prime requisites of success. That is true as far as it goes, but there is still a factor wanting to make the explanation complete. Other writers have placed it in the possession of a race of cattle popular throughout the world, a climate which is perfection, and a ready market almost at their very door. To these combined, I would add, "*A diffused property, a diffused capital, and a diffused intelligence.*" The 19,000 acres of arable land of Jersey are divided among 2,600 farmers; only six have farms of one hundred acres; some fifty or more own twenty acres; but the great majority have small holdings from one-half acre to five or six. Land does not often change hands. If inherited, it cannot be devised by will, but must follow the line of succession, the law requiring that at death every child shall receive a part, the oldest son having the house in addition. The land laws thus discourage aggregation of property, and favor its distribution among the members of

the family. Every man is at the same time a land-owner, a capitalist and a laborer. To this "diffusion of property," and to the universal thrift and industry naturally following such diffusion, I attribute the general prosperity of the people. It is natural that a man owning his little piece of land should improve it to the utmost, and make it yield the largest income possible. The man occupying temporarily another's land will not lay out upon it any more than he can possibly help. There results, then, from these small holdings, an intense cultivation not possible on large estates.

How different the case is in England may be seen from the following figures: of the 36,000,000 acres comprising England and Wales, 4,500 persons own 20,000,000; 288 hold over 5,000,000; 52 hold over 9,000 acres apiece; 204 hold over 5,000 and 2,432 hold over 1,000. More than one-half is owned by private individuals, holding 1,000 acres and upward. In Scotland this aggregation of land by the few is still more striking. Of its 19,000,000 acres, nine-tenths are held by less than 1,700 persons, and one-half of the whole of its area is held by 70 persons. The whole number of land-owners is 131,530, but of these 111,658 own less than an acre apiece. The largest estate is held by the Duke and Duchess of Sutherland, and amounts to 1,326,000 acres. With such a distribution of property, and with a poor law costing thirty-five million dollars annually, what outlook is there for the English farmer? What hope of ever acquiring possession of the little plot of land on which he works and spends his days, or what motive to induce him to improve property he cannot leave to his children? A recent writer puts it in an nutshell when he says: "In England

the agricultural laborers, with the lands about them all taken up and so unsalable, and with a poor law to provide for them under all the calamities of life, whether brought about by mishap or by their own wilful vice, have but little motive, even if they had the opportunity, for saving."

REMINISCENCES OF THE ORIENT

“MANY a traveller will remember, no doubt, a sudden thrill on awakening suddenly in the midst of his first night on Eastern soil—waking as it were from dream into dream. For there came a voice, solitary, sweet, sonorous, floating from on high through the moonlight stillness, the voice of the blind Muezzeen, singing the Ulah or first call to prayer. And at the sound, many a white figure would move silently on the low roofs, and not merely, like the palms and cypresses around, bow his head, but prostrate, and bend his knees. And the sounds went and came: ‘God is good! God is great! Prayer is better than sleep! There is no God, but God, and Mahomet is his prophet! La elah il Allah! Mahomet raçoul Allah! He giveth life and he dieth not! O thou bountiful! Thy mercy ceaseth not! My sins are great! Greater is thy mercy! I extol thy perfections!’ And then the cry would be taken up and prolonged by other Muezzeens, and from the north and the south, the east and the west, came floating on the morning stillness this pious invitation to prayer, — this proclamation to all the world of the embodiment of the Moslem creed: ‘There is no God, but God, and Mahomet is his prophet.’”

Who that has ever been in the East can for an instant lose the impression of that first moment, so vividly portrayed in the above sketch? It is perhaps the most characteristic feature of Eastern life, and one that is repeated daily,

again and again, in every Turkish city. A creed so simple and yet so bold in its utterance! Its very strength lies in its simplicity; and the millions who have lived and died in the profession of its faith have carried its tenets triumphantly from the shores of the Atlantic to the great wall of China and the heart of further India.

Reminiscences of the East: of the land of the fig-tree and olive, the vine and the pomegranate, the myrtle and rose, the musk and the ottar of Araby the Blest, and the delicious notes of nightingales warbling as though intoxicated with their own sweet song. What images rise up before me and return to my memory! Out of all this luxuriance, what shall I select as my theme?

Shall I tell you of that wondrous city, "alone of all the cities of the world, standing on two continents," massed on its seven hills, and rising tier on tier of swelling domes and burnished minarets, each one a centre of refulgent light, yet so toned down and softened under the light of a sky known in no other clime than in the East, so circled round by masses of dark verdure which cluster round the sacred edifices, that the eye finds no inharmonious point, but wanders with recurring delight over the whole?

Or shall I tell you of the great war between the crescent and the cross, when, lying almost within sound of the great guns whose iron hail was crashing upon the doomed city of Sevastopol, we watched the transports sailing by, carrying reinforcements to the allied troops or bringing to the city the thousands of unhappy wretches, gashed and maimed, battered out of the semblance of humanity, or who, stricken down by the insidious attack of disease, had been brought there to linger a while and die?

Or, once more, shall I tell you of the land itself, its products and resources, the people and their ways, their lives and occupations, their various methods of gaining their daily bread?

It has seemed to me that perhaps this last was the more appropriate. And yet I almost despair of giving you an adequate idea of a country and a people where everything is done in a manner so exactly opposite to our own. The distinction they make between the religious and the moral character is very singular. With us there can be no religion without morality; but with them the religious has nothing to do with the moral character. The pirate committing murder on the high seas, and taken red-handed, refuses to eat meat on Friday and thus imperil his soul, even while his hands are yet wet with his brother's blood. The robber stripes you to the skin, takes everything you possess, maltreats and threatens you with death, and then calmly ejaculates as he leaves you, 'May God save you, my lamb, if in danger! I give you into His keeping.'

No one is ever supposed to be the less covetous, the less a cheat, a gambler, a liar, a defrauder, a robber, a murderer, because he prays. Nothing is further from his own thoughts or the thoughts of the bystanders, than that his prayers should exert any transforming influence upon his own character. And why should they? For when they have business to transact with their neighbors on temporal matters, they use a language which all can understand, but whenever they have any business with their Maker about their eternal interests, it is always done in a language they do not understand. Outwardly pious and sincere, inwardly they are whited sepulchres and full of dead men's bones. The

traveler in the highway, the artisan in his shop, the merchant in the bazaar, the loungeur in the café, when the hour for prayer arrives, hastens to spread his little carpet on the ground and goes through the required formula. But he is keenly alive all the time to whatever is going on about him, and when his pious ejaculations are ended, will be found to have lost not an iota of anything that may have been said during his temporary fit of piety. If a professional storyteller has been amusing the crowd with some entertaining tale while he was praying, he will be found not to have lost the point of the story, or the pith of any joke.

The writer of the article entitled "Baron Hirsch's Railway in Turkey," tells the following story: A peasant one day sent in all haste for an American missionary to come and pray for him. Not a little surprised at the unusual request, the missionary went, and the peasant remarked, "Your prayers are more efficacious than those of our priests." The missionary was somewhat surprised at this, and after modestly murmuring something concerning faith, was preparing to comply with the request, when the man continued, "I have taken a ticket in the Vienna lottery. If I win through your prayers, you shall have one-half."

It was apparently a perfectly natural thing, this copartnership of earth and heaven, and the peasant could see no impropriety in invoking the prayers of those he considered more potent than he. He put up the money, the missionary furnished the prayers, and they went divvys on the result. What harm?

But to turn from the moral side to the customs of everyday life. The barber, for example, pushes the razor from him; ours draws it to him. The carpenter draws the saw

towards him, for all the teeth are set in; ours does the reverse, for the teeth are set out. The mason sits while he lays and trims his stone, ours stands. The scribe writes from right to left, usually upon his hand or knee; ours from left to right, upon the table or desk. Even in the matter of building a house, the same law prevails. We begin at the bottom and finish at the top; the Turks begin at the top, and frequently the upper rooms are entirely finished and habitable, while all below is a mere framework like a lantern.

The Oriental uses a pipe so long that he cannot hold a coal to the bowl and at the same time draw a whiff of tobacco smoke from the other end. We use one so short that the scent of burned hair too often mingles with that of the fragrant weed. We polish our boots with elaborate care; but these people, whose religion, perhaps, will not allow them to use brushes made from the bristles of the unclean beast, wipe up their shoes with their hands, and then put on the last finishing touches with their handkerchiefs, or the slack of those wonderful things denominated Turkish trousers. Burnaby, in his "On Horseback through Asia Minor," quotes a missionary as saying: "The Turks about here are just the bottom-side-upwardest, and the top-side-downwardest, the back-side-forwardest, and the forward-side-backwardest people I have ever seen. Why, they call a compass which points to the north, 'queblen,' or south, just for the sake of contradiction; and they have to change their watches every twenty-four hours, because they count their time from after sunset, instead of reckoning up the day like a Christian." One more striking point of difference, and we have done. The Turks through long ages led a roving, wandering life in the immense plains of northern and cen-

tral Asia. Rising from the position of slave and subject to that of master, they gradually fought their way down to the shores of the Mediterranean and occupied the entire territory. But the inherited instincts of so many generations have never been completely laid aside. As in their warlike, migratory state, the tent was to them simply a sleeping-place to which they retired for the night, so the house has been to them ever since. *Home*, in our sense of the word, with all its beautiful associations, has no answering equivalent in their mind, and, in fact, there is no word in their language which can convey such an idea.

To add to the difficulty of giving any adequate idea of the people of Turkey, is the fact that they do not form a single race, amalgamated and blended into one, though made up of different race-elements, but are composed of Turks, Jews, Greeks, Armenians, wild tribes of Koords, Turcomans, Kuzel Bash, and the Bulgarian, Croatian, and Slavonian tribes of the Danubian principalities, each retaining its distinct nationality, its own religious rites, and its own peculiar customs and ways. Of the population of eight millions in round numbers in European Turkey, the Turks number about 3,600,000, and the rest are Christian and Jews. In Asiatic Turkey the proportion is about the same. Of these, the Greeks and the Jews are the tradesmen; the Armenians the artizans and bankers; the Bulgarians and Croats are agricultural in their tastes, while the Koords and Turcomans live largely by plunder and by the produce of their herds. In such an assemblage of races you would naturally expect to find great differences; and yet, after all, certain distinct features will be found peculiar to all, and certain customs that are common to all.

As a rule, the Turk will be found to be honest and truthful, and living up to the command laid down by Mahomet in the earlier days of his inspiration: "When thou hast given thy word, stand fast by it, and let the words of thy mouth be even as thy written agreement." Of the other races we cannot say as much. The Jews, as in all ages, are the money-getters, and live and thrive in their quarters, as in the Ghetto of Rome, in a squalor and filth that would quickly exterminate any other race. The Greeks are shrewd and enterprising, but the characterization of the Cretans by St. Paul is no inapt description of their character: "The Cretans are always liars, evil beasts, slow bellies." Their own countryman, Euripides, even before the time of the apostle, wrote: "Greece never had the least spark of honesty"; and Lord Byron, twenty centuries after, one of the most enthusiastic in their cause, exclaims: "I am of St. Paul's opinion, that there is no difference between Jews and Greeks — the character of both being equally vile."

The Armenians, on the other hand, are a purer, simpler race, retaining much of that individual nationality which made them formidable in the days of the Romans. But contact with the outer world — with the foreigners pouring into Turkey — is changing their character for the worse. It need hardly be said that the farther you go from the capital and the large cities, the simpler and more innocent the lives of the people.

In nothing is this difference of nationality so strikingly manifested as in the cemeteries. The Turks plant theirs with the cypress, and at the head of a grave where a man is buried, a stone is erected crowned with a turban, or, in more recent times, with the national emblem — the fez. At the

foot of the grave a plainer stone marks the resting-place of the woman. The turban is absent, and in its place the top of the stone is rounded or pointed, while a running vine is worked around the outer edge. The inscription is very simple — only the name of the family of the deceased, and a recommendation of his soul to the only living and true God. A beautiful custom prevails, both among the Turks and the Christian population, of hollowing out two small cavities in the tablet covering the grave itself, which are kept filled with seeds and fresh water to attract the birds to come and build their nests near by and sing their songs over the graves of the departed.

The cemeteries of the Jews are in keeping with their daily life. As their object is so to live as not to attract attention and thus call down upon themselves the persecution of their neighbors, so the resting-places of their dead display the same neglect and want of care. Nothing drearier or more desolate can be imagined. Not a tree or shrub to relieve the melancholy waste. Nothing but the barren hillsides, strewn for miles around with gray slabs, lying in the most terrible confusion.

Not so the Greeks and Armenians. Choosing some beautiful site, as in the “Grand Champ des Morts” at Constantinople, overlooking the Bosphorus and the Marmora, they plant the stately palm or the graceful terebinthus [turpentine], erect a coffee-house, and make it a fashionable resort. Its cool and airy situation, its agreeable shade and the convenience of comfortable seats afforded by the tombstones, make it a pleasant promenade. Here, on the flat tablets, the elders mark out a rough board and play games of chance or checkers, or perchance discuss the merits of

their ancestors sleeping quietly beneath. Here lovers wander arm in arm and whisper their fond nothings, undisturbed by ghosts of former days. And here the gallants, as they sip their wine, order so many Roman candles burnt in honor of their ladies.

The occupation of the deceased is always portrayed upon his tombstone: an adze or saw representing a carpenter; a lancet, a barber; an anvil, a blacksmith; an inkstand, a scribe or lawyer; and if, perchance, his end has been hastened by violence, the manner of his "taking off" is faithfully portrayed. Here you may see a representation of the deceased upon his knees, holding his head in his hands, while jets of blood spout from his neck in stiff curves, like those issuing from a beer bottle on a tavern sign. There you may see the fatal bowstring adjusted about the neck as he awaits the tightening of the cord. These representations carry with them no associations of infamy or crime. They are but the heraldic quarterings to be found among the aristocracy of other nations, and if they had a name would be called the "scimeter pendant, or the bowstring displayed in a field azure." Only, instead of being blazoned upon the carriages of the living, they are placed upon the tombstones of the dead; for they signify that the wealth of the deceased was sufficient to excite the avarice of the reigning power. "To die, then, by the sword or bowstring, implies the possession of wealth, and the surviving relatives glorify themselves in perpetuating this record of financial standing and consideration."

To the observant traveler in the East, one of its most noticeable features is the absence of farm life among its inhabitants. Between village and village you rarely meet

with isolated farm-houses or cultivated areas. You pass directly from the town or hamlet, with its surrounding gardens and arable land, into a wild, unbroken territory, infested only by wild beasts and lawless men. From motives of security, the people all live together in the villages; the farmer going to his farm, two or three miles away, every morning, and quitting work an hour before sundown, to return to his distant family. Even in the neighborhood of large cities you find this to be the case; and within fifteen miles of Constantinople itself, with its million or more of population, could still be shot, only a few years ago, wild boars and wolves in the dense forests surrounding the Bents of Belgrade.

Another very noticeable fact is the utter disregard of fertilizers. Great heaps of manure accumulate in the sheep-folds, the poultry yards and horse-stables, which are allowed to waste from lack of knowledge of their value. It is true that on the banks of the Euphrates and Tigris, where are grown the celebrated melons, three of which make a camel's load of, say, six hundred pounds, a hole is scooped in the sand, a handful of hen or pigeon manure thrown in, the seed planted, and Nature left to do the rest. But this is the exception to the rule. Nor should we blame these people too severely, when we have such bright and shining examples of the same pernicious practice in this country. In California, in the vicinity of Santa Barbara, the manure is hauled, not to the field, but to the public highways, where it is carefully spread to keep down the dust; and in Canada the farmers were reported only this last summer as dumping it by the cart-load into the rivers.

The droppings of the cow, on the other hand, are care-

fully preserved, worked up with coarse straw and stubble, and dried for winter fuel; for over large areas the woods have entirely disappeared, and the poor people have no other resource. The preparation of the winter's supply is especially the duty of the women, and, to quote the words of the veteran missionary Van Lennep: "We have watched them collecting the manure from the track which the cattle follow in going to pasture in the morning, shaping it into round cakes, six or eight inches in diameter, by handling it as they would a lump of dough, and with a skilful twist of their hand suddenly sticking it on the walls of their houses to dry in the sun. They seem to enter upon this duty as a matter of course, and conduct it with an artistic dexterity which proves that it is one of the accomplishments of the good housewife much to be desired."

As to the distribution of the arable land, we may make the general division into villages and "Chifliks," or farms of considerable extent. The common farmers live in villages for safety. They may own the land around them in common, but generally each man has his own. The commune system is mainly in European Turkey, and is the ancient system of the Slavic race.

The "Chifliks," or large farms, are usually owned by Turks, and vary in size from several hundred to as many thousand acres. They constitute a village in themselves: the landed proprietor in the centre, usually on an elevated bit of ground, and the huts of his dependents clustered around and below. It is only the old feudal system revived: the lord in his castle, and the hovels of his humble retainers grouped about the walls. These large estates are devoted principally to grazing; but if there is good wheat land you

may see immense fields of grain, from which a good yield is considered nine to ten bushels for one of sowing. The crops are never measured by the acre, and the above yield would probably be not over twenty bushels to the acre.

The threshing floor and its implements and operations would interest an American farmer in the very highest degree. Frequently a whole village will unite in constructing one for common use. A description of such an one from Hamlin's "Among the Turks" may not be uninteresting: "I examined one that was about one thousand feet in length, and, say, one-third of that in breadth. It was made by hauling on to it hundreds of loads of clay and coarse gravel. The whole was made into mortar, and spread some five or six inches deep on a level, well-prepared surface. It was then tamped every day by a force of men, that went all over it twice a day, until it became too dry and solid for further work. It is now artificial stone. Its inclination from a level is just enough to keep it clear of water. With occasional repairs, it lasts for generations. About three-fourths of this floor is given to threshing, the rest to winnowing. The grain from the field is spread six or eight inches deep over the floor, and then the whole animal force of the village is turned in upon it, — horses, donkeys, mules, horned cattle, with carts and drags, or with nothing but the feet."

But the most effective, the finishing-off instrument, is doubtless that referred to by the Prophet Isaiah (xli, 15-16), where he says: "Behold, I will make thee a new sharp threshing instrument having teeth." And this *having teeth* is what I desire especially to bring to your attention. In appearance it looks very much on the upper side like a common stone drag or boat. It is of plank, about three inches

thick, of the toughest wood, and studded on the under side with sharp flints. The edges of these flints, after being driven into the socket chiseled out for them, are trimmed sharp; and thus completed it makes a most savage-looking implement. Seated on this, with a long pole to prevent the bundles from riding up over the bow, the driver urges on his bullocks. As it goes round and round the area, it cuts and bruises the straw fine, and this, with the chaff, takes the place of hay for cattle-feed in the East. The threshing process over, there are two raking operations: one to clear off the coarse straw not good for food; this is piled up as worthless chaff to be burned. Then follows a skillful raking off of the finer straw without taking up the wheat. After being passed through sieves, which let the wheat and chaff pass through but retain the coarser stuff, it is ready for the winnowing. This is accomplished by tossing the wheat high into the air, from shovels made of beech, with long, elastic handles, to allow the breeze to carry off the lighter particles. Two more siftings, in sieves of different-sized meshes, complete the operation.

The wheat thus cleaned looks well, but oh, the labor! Thousands and thousands of bushels are injured or destroyed annually by the rains before the threshing is over; for at best, even with several threshing-floors, it will take a number of weeks for all in the village to have their turn. Efforts have been made from time to time to introduce more perfect machines, but the attempt has always been viewed with distrust by the natives, and dark hints have been mysteriously circulated of the agency of the Evil One. We all remember the story of the opposition to the penny post in London, and how it was denounced by the long-headed

ones as an "insidious Popish contrivance." History only repeats itself; and it is this same conservative spirit that Sir Walter Scott satirizes in his "Antiquary," when he puts into the mouth of Mause Headrigg the following objections to winnowing machines: "It is a new-fangled machine for freeing the corn frae the chaff, thus impiously thwarting the will o' divine Providence, by raising wind for your leddyship's use by human art, instead of soliciting it by prayer, or patiently waiting for whatever dispensation of wind Providence was pleased to send upon the shieling hill."

The other implements of husbandry are very simple and primitive. The ox-yoke is made of two straight pieces, one above, the other below the neck, the top piece alone being hollowed. Two straight pins serve instead of the yoke to inclose the neck, a strong trunnel in the middle taking the place of staple and ring.

The plough is absurdly ridiculous. Take a pole about ten feet long, four or five inches in diameter at the butt; and by mortise and tenon unite this at a slightly acute angle to another piece of about equal size, sharpened and shod with iron to plough the earth, and variously provided with some sort of a handle for the ploughman's hand, and you have an Oriental plough. It does not turn a furrow, it simply scratches the earth to the depth of four or five inches, and then the ground must be cross-ploughed in order to secure anything like an adequate preparation for the sowing. European ploughs, to which several pairs of buffaloes were attached, have been introduced at various times, but were soon given up on account of the difficulty of finding animals strong enough to draw them. The hope of success lies in

the improvement of the breed, but there is something beyond this, for the best breeds introduced soon degenerate from lack of nourishment. The country must be better governed, property made more secure, before farmers will find it to their advantage to give their cattle more than the scanty grass they can pick up here and there on the parched hillsides. The improvement of implements will follow as a matter of course. The same thing is true of the ordinary horses: barley and straw alone, and the treatment received through many generations, have produced the small, wiry, enduring hack of Asia Minor, as far removed from the lithe form and airy grace of the Arab steed as light is from darkness.

The spade is triangular in shape, with a straight handle, longer than a man is tall. A few inches above the blade, a piece of wood is mortised in, upon which the foot is set, to force the blade deep into the earth. The length of the handle enables the laborer to lay his whole weight upon the extremity, and afterwards use it as a lever in order to raise a large quantity of soil, which he merely turns over. "Shallow ploughing but deep spading seem then to be the two chief rules of Oriental agriculture."

The hoe has a broad blade, not flat, but slightly concave, the handle very short, compelling the laborer to crouch to his work. The sickle is about the same form as our own. The scythe shorter, heavier, clumsier, the snath nearly straight, with but one handle, the left hand grasping the snath itself. The blade has no curve worth mentioning. Fortunately for the back of the laborer, hay is in so little demand that the scythe is practically used only in the cradle, and that not by Turks, but almost exclusively by the Bul-

garians. As you pass by the great wheat fields you will see men and women with their sickles slowly and laboriously reaping the golden harvest. Ask them whether they could not do the work much more rapidly and easily with the cradle, and they will answer, "Doubtless." Ask them why they do not use it, they will reply, "Good Lord! it is not our custom." And *that* is the end of all controversy with an Oriental. To change the custom of his fathers is as impious an act as to defile the bones of his ancestors or curse his grandmother.

One is sometimes in despair of any progress in the Eastern world. The beginning must be made at the root. Educate the youth, and they are as ready for improvement as any people. In some places on the rich lands of the Danube, modern implements of harvesting have been introduced, and the produce doubled, because the farmer is no longer afraid of sowing more than he can gather. The women do a great deal of work in the fields, and may be seen laboring side by side with the men. The position occupied by them may be fairly well illustrated by the following story: A gentleman riding one day in the country overtook a man who had laden his wife with a heavy bundle of sticks. He remonstrated with him, saying, "My good man, it is too bad that you should load your wife down in this way. What she is carrying is a mule's burden." — "Yes, your excellency," the man replied, "what you say is true. *It is* a mule's burden. But then you see Providence has not supplied us with mules, and he has supplied us with women."

It is the same all through the East. Sir Thomas Munro, in his "Travels to the City of the Caliphs," relates as a reason why an Indian should be exempt from paying his tax that

he pleaded the loss of his wife, who "did as much work as two bullocks."

Stuart Woods, in a recent number of the "Quarterly Journal of Economics," says: "The agricultural processes of different countries are among the surest indications of the condition of the laboring population. In Germany it is a common sight to see a cart drawn by a woman and a dog. Where labor is dearer and money more plenty, or the people a little easier, a horse releases both alike from their unnatural task. In the United States, where labor is dear, costly agricultural machinery is extensively used in spite of the smallness of the farms. It is much used in England also, because there the farms are large; and wages, although lower than in the United States, still far exceed those of other countries. In Russia, on the other hand, in Turkey and in Asiatic countries, we find the rudest tools; baskets are used instead of wheelbarrows, wooden ploughs instead of iron ones; and gangs of spade-men replace both the ploughs and the beasts which draw them. A part of this is no doubt due to sheer stupidity, but much is also due to the price of labor and the rates of interest."

The products of the soil are as various as the climate and geological character of the country. Fruits are abundant, of excellent quality, and extensively used by the whole population. Grapes are delicious, and within reach of the poorest, selling at the rate of two pounds and three-fourths for two or three cents. Apples, apricots, peaches, cherries, and plums have their localities of abundant growth, but no attention is paid to obtaining the best kinds, or improving those already possessed.¹

¹ I am largely indebted to Hamlin's *Agriculture of the East* for my facts.

Of grapes, whoever has once partaken of the famous *chaoush* from the Bithynian side of the Bosphorus, will forever eschew all others: thin-skinned, small-seeded, fine-pulped, — a dream, a delight, — something to be talked about, *never* to find equaled. The vineyards of the Christians and the Moslems differ in one very important particular. The former cultivate those kinds suitable for making wines; the latter, those that are best for food. While the one are making spirits, the others are preparing that grape-molasses called *pekmez*, which is extensively used. In it, all manner of fruits are stewed or boiled, and the preserves laid aside for winter use. With it, savory dishes of quinces and meat, or chestnuts and meat, are prepared, much relished by the poor.

The olive is grown over a very wide area, especially in Asiatic Turkey and the Mediterranean islands. It is a universal article of food. Give an Oriental bread and black olives for a lunch, and he is happy. Add to this, olive oil to flavor his stewed beans, his clam and rice, and his salads, and he is happier. Beyond that it is not necessary to go. The olive orchard in the flowering time is one of the most beautiful sights in the world, — the gnarled and twisted trunks hoar with age; the short, oblate, slightly curled silvery leaves; the branches fairly bending beneath the weight of the snowy petals, and the ground beneath and around white as with flakes of snow. Job says, referring to this peculiarity of its shedding its blossoms: "He shall cast off his flowers as the olive." Next to the cereals, it is by far the most important agricultural product of Turkey. Its berry, pickled, forms the chief article of food; the oil, produced from its pericarp, seasons most of the dishes, and

keeps alive the light that cheers the winter's gloom; its wood, close-grained and hard, takes on a beautiful polish and is very highly prized; while its bark and leaves, possessing certain febrifuge principles, are much sought after by the leeches of the country. The tree is slow in reaching maturity, but after the fifteenth or sixteenth year it bears on indefinitely, and seems never to lose its vitality. There are trees in the garden of Gethsemane estimated to be one thousand years old, still in full sap and vigor. It is of all fruit trees the hardiest, for scarcely any amount of mutilation, any severity of frost, or even sharp scorching by fire, suffices to destroy its life. "So long as there is a fragment remaining, though externally the tree looks as dry as a post, yet does it continue to bear its load of oily berries; and for twenty generations the owner gathers fruit from the faithful old patriarch. This tree also requires but little labor or care of any kind, and, if long neglected, will revive again when the ground is dug or ploughed, and yield as before. Vineyards forsaken die out almost immediately, and mulberry orchards neglected run rapidly to ruin; but not so the olive. Though they may not have been attended to for half a century, yet they continue to be a source of income to their owners."

These peculiarities Virgil observed and carefully noted in his "Georgics" nearly two thousand years ago: —

But, on the other hand, no culture needs
The olive tree at all; not if the knife
Forthcurved expects, nor clinging hoe, when once
It in the field is fixed, and bears the breeze.
To it the earth, its bosom loosened up
By furrows of the ploughshare's hook-like tooth,

Sufficient moisture gives, and gives the plough
Returns of weighty fruitage rich and ripe.

GEORGICS, II.

Why, cleave an olive tree's dry stump, and, strange
And wondrous strange to tell, an olive root
Will from the dry wood come!

Frequently a whole village will unite and plant a grove in common. Then not even the berries that fall to the ground are allowed to be picked till a proclamation is issued by the head man of the village or the governor of the province. A tree yields from ten to fifteen gallons of oil, and the profits are about one hundred dollars to the acre. It is claimed that the tree bears only every other year; but this is due probably to the vicious manner of gathering the fruit, — beating the branches with long poles to shake off the berries, and, in so doing, bruising and destroying the tender buds that are setting for the next year's crop.

The husks with which the prodigal son would fain have filled his belly, and which Scripture says the swine did eat, were not after all such very poor fare. Many a repentant sinner might go farther and fare worse. They are the fleshy pods of the locust tree, a leathery brown when fit to eat, from six to eight inches in length, containing a spongy, mealy pulp, of a sweet and pleasant taste in its ripened state, and in which are imbedded a number of shining brown seeds, very hard, and somewhat resembling a split pea. These seeds are of no value whatsoever, on account of their bitter flavor; but the sweet pulp of the pod, when dry, is extensively used as an article of food, particularly among the laboring classes. In Syria it is ground up into a coarse flour, and a species of molasses made, which is used in the prepara-

tion of different kinds of sweetmeats. As food for horses it is exported in large quantities into the south of Europe. Into this country and Great Britain it finds its way, under the name of locust beans or St. John's bread, receiving both names from the ancient tradition that they are the "locusts" which formed the food of John the Baptist in the wilderness. The tree is cultivated extensively in all the countries bordering the shores of the Mediterranean, both for its food-producing qualities and its wood, which is hard and susceptible of a fine polish. In size and manner of growth it resembles an apple tree, but is more bushy and thick-set. It yields a prolific harvest, and it is not unusual to see a tree bearing over half a ton of green pods.

One other tree deserves mention, not on account of its food-producing qualities, but for its importance in a commercial point of view. It is the shrub oak, — the *Quercus ægilops*, — which, growing wild on the mountain slopes and rugged steepes, where nothing else will grow, gives employment to hundreds of men, women, and children, who, in the season, go out to gather the acorns. These are brought down in sacks to the nearest seaport, whence they are exported, thousands of tons annually, under the name of "valonia," to be used in the tanneries of Europe. They readily command eighty to ninety dollars a ton; and, from the seaport towns of Smyrna and the islands adjacent, forty thousand tons have been sent to England alone in a single year.

The cereals of the empire do not differ much from ours. The exports are barley, maize, and wheat. Rye, oats, and millet give good results, and there are various other seeds of good native use. Looking only at the soil, climate, in-

dustrial population, and the rivers and coasts of her great inland seas, Turkey ought to be our formidable rival in the markets of Europe; but her state of paralysis is such that nothing is to be apprehended from that quarter. Destructive treaties with England and stupid legislation on the part of her own government have reduced her to a state of hopeless bankruptcy.

Turkish agriculture and horticulture furnish all that the heart could wish in the shape of edible vegetables. All that we produce is there produced, with the exception of potatoes, which are imported from Europe; squashes of various kinds, and measure unlimited; okra, spinach, celery; melons, unrivaled in flavor and size; cucumbers of any length you choose.

The people of the East eat hardly any meat, but live almost wholly on vegetables. The same regimen that made the three Israelitish captives at the Babylonian court so much fairer and fatter than those fed on the king's meat, seems to agree remarkably with the people now. Given a little rice, some unleavened bread, a few olives, a cucumber cut up with garlic and seasoned with oil, and a pound or two of grapes or other fruit, and you produce those miracles of strength to be found in the Turkish porters, who, adjusting the burden to the pack they carry on their backs, walk off with a load of from five to seven hundred pounds, and make nothing of it.

Tobacco is grown in many parts of the empire, but it is a government monopoly, and the taxes levied upon the unhappy cultivators are so burdensome that they are gradually being forced to give up the business. The finest tobacco, distinguished for its mild character and exquisite flavor,

comes from the hill-sides of Latakia, a seaport town of Syria. It is a little singular that smoking, introduced into the East not earlier than the seventeenth century, should have taken such deep root that the Turks and the Persians are now looked upon as the greatest smokers in the world. Men, women, and children, with consummate skill, roll their little cigarettes, — for they are never purchased ready made; and the yellow stain on the finger-tips is as characteristic a mark as the black on the hand of a printer's devil.

Coming now to the farm-yard, we find it abundantly provided with animal life. In every part of Turkey domestic fowls are met with, and the traveler always finds eggs and chickens, if nothing more. In European Turkey large flocks of geese and turkeys are raised for the Constantinople market, and are driven down from the inland farms, a distance even of one hundred and fifty miles. This task is usually performed by gypsies; and we have often wondered at the unerring precision with which, with their hooked sticks, they would suddenly arrest some lunatic goose in full career of wings and feet. The hens are transported in crates on the backs of horses.

The Turkish horse is a smaller, hardier animal than ours. It is more tractable, less nervous, has a better disposition, and rarely runs away. It is broken only to be ridden, and not driven; for, outside of the city of Constantinople, there is not a pleasure carriage to be found in the whole empire. In the cities all loads are carried on the backs of the porters, or, suspended on poles, are carried by two or more of the same class. In the country are to be found only the rudest kinds of carts, drawn by bullocks or buffaloes, — the wheels cut out of a solid piece of wood four or five inches thick; and

as no grease is used, the terrible squeaking and groaning that is made, as the carts lumber along, remind one, as has been quaintly said, of "all the pandemonium of hell let loose."

The horses of the sultan's stable, and of some of the pashas', are magnificent creatures, wholly or in part of Arab blood. But the larger proportion of the horses met with are of a very inferior breed. The Turkish cavalry is well mounted, and the horses are far lighter and smaller than those in the English or French service; and during the Crimean war there was nothing attracted so much admiration as the splendid horses of the allies. The sultan, and, indeed, the whole Turkish government, jealously guard the Arab race of horses, that no infidel foreigner may ever possess the pure breed. The pure-blooded Arab mare is never to be sold or given away to a foreigner, nor can the Moslem take her with him outside of the country. It may be doubted whether it ever has been done, and whether, in the cases claimed, the blood is pure and the pedigree sure.

Perhaps no one is better qualified to speak of the Arab horses than the traveler Palgrave, whose command of the Eastern languages was such, that, in the guise of a native, he penetrated into the very heart of Arabia, and lived for months unsuspected among the people. Nay, in one of his journeys in Turkey, he actually officiated in one of the mosques in place of the regular priest, who had been taken sick. Practicing as a physician in the Nejed district, where the race of horses is the purest, and having been permitted to see and examine the stud of the sultan, he says: "Never had I seen or imagined so lovely a collection. Their stature was, indeed, somewhat low, — I do not think that

any came fully up to fifteen hands: fourteen appeared to me to be about their average; but they were so exquisitely well shaped that want of greater size seemed hardly, if at all, a defect. Remarkably full in the haunches, with a shoulder of a slope so elegant as to make one, in the words of an Arab poet, 'go raving mad over it'; a little, a very little saddle-backed, just the curve which indicates springiness without any weakness; a head broad above, and tapering down to a nose fine enough to verify the phrase of 'drinking from a pint-pot,' did pint-pots exist in Nejed; a most intelligent yet singularly gentle look; full eyes; sharp, thorn-like little ear; legs fore and hind that seemed as if made of hammered iron, so clean and yet so well twisted with sinew; a neat, round hoof, just the requisite for hard ground; the tail set on, or rather thrown out, at a perfect arch; coat smooth, shining and light; the mane long, but not overgrown or heavy; and an air and step that seemed to say, 'Look at me; am I not pretty?' Their appearance justified all reputation, all value, all poetry. . . . But, if asked what are, after all, the especially distinctive points of the Arab horse, I should reply, the slope of the shoulder, the extreme cleanliness of the shank, and the full, rounded haunch, — though every other part, too, has a perfection and a harmony unwitnessed anywhere else."

No Arab ever dreams of tying up his horse by the neck. The tether replaces the halter. A light iron ring furnished with a padlock encircles the hind leg just above the pastern. A rope is attached to this, and made fast to an iron peg set in the ground. To make of their horse a devoted friend is the end sought after by all Arabs. With them he leads, so to speak, a domesticated life, in which, as in all domestic

life, women play a conspicuous part, — that, in fact, of preparing, by their gentleness, vigilance, and unceasing attention, the solidarity that ought to exist between the man and the animal. A sustained education, daily contact with man, — that is their grand secret; it is that which makes the Arab horse what he is, — an object worthy of our unexceptional admiration. No wonder the Arab poets sing, with the metaphor and hyperbole peculiar to that glowing clime: “Say not it is my horse; say it is my son. He outstrips the flash in the pan, or the glance of the eye. His eye-sight is so good that he can distinguish a black hair in the night-time. In the day of battle he delights in the whistling of the balls. He overtakes the gazelle. He says to the eagle, ‘Come down, or I will ascend to thee.’ When he hears the voice of the maidens, he neighs with joy. When he gallops, he plucks out the tear from the eye. He is so light he could dance on the bosom of thy mistress without bruising it. He is a thorough-bred, the very head of horses. No one has ever possessed his equal. I depend on him as my own heart.”

The famous Arab chieftain, Abd-el-Kadr, who for so many years gloriously resisted French aggression in northern Africa, betrayed unhappily by fortune, but saved by history, prepared, while languishing in confinement in France, a series of maxims concerning the horse and its management, that are worthy of close attention. His method of judging a horse is “to measure him from the root of the mane close to the withers, and descend to the end of the upper lip between the nostrils. Then measure from the root of the mane to the end of the tail-bone, and if the fore-part is longer than the hind part, there is no doubt the horse will have excellent qualities. To ascertain if a young horse will grow any more,

measure first from the knee to the highest point situated in the prolongation of the limb above the withers, then from the knee downwards to the beginning of the hair above the coronet (to the crest of the hoof); if these two measures are to one another as two-thirds to one-third, the horse will grow no more. If this proportion does not exist, the animal has not done growing; for it is absolutely necessary that the height from the knee to the withers should represent, in a full-grown horse, exactly double the length of the leg from the knee to the hoof."

And now, with a few choice maxims from the same hand, I must pass on to other themes: —

No one becomes a horseman until he has been often thrown.

Thorough-bred horses have no vice.

A horse in a leading-string is an honor to his master.

Whoso forgets the beauty of horses for that of women, will never prosper.

Horses know their riders.

The best time of day for giving barley is the evening. Unless on a journey, it is useless to give it in the morning.

Water a horse at sunrise, and it makes him lose flesh. Water him in the evening, and it puts him in good condition. Water him in the middle of the day, and you keep him as he is.

During the great forty-day heats, water your horses only every other day.

"The pious Ben-el-Abbas — Allah be good to him! — hath said": —

Love horses and take care of them.

Spare no trouble;

By them comes honor, by them comes beauty.

If horses are forsaken of men,

I will receive them into my family,

I will share with them the bread of my children;

My wives shall cover them with their veils,

And cover themselves with the horse-cloths.

I ride them every day
Over the field of adventures;
Carried away in their impetuous career,
I combat the most valiant.
My steed is as black as a night without moon or stars.
He was foaled in vast solitudes;
He is an air-drinker, son of an air-drinker.
His dam also was of noble race, and our horsemen have named
him the javelin.
The lightning flash itself cannot overtake him;
Allah save him from the evil eye!

The mule needs no remark. He is the same useful, hard-working, unpopular animal in Turkey as in America. He has the same moral obliquity of character, and the same uncertainty in his business end, as elsewhere. His great usefulness in the transportation of goods makes him worthy of better treatment than he receives.

The donkey, the poor donkey, is everywhere in the way. He is the common bearer of a certain class of burdens in all the cities. You meet him in every street. He crowds you to the wall with protruding load. Everybody curses and kicks him, while he is doing his best. He carries all the sand, lime, bricks, boards, and lighter timbers for building. He carries away all the refuse of every kind. He is the most useful, abused, and patient of animals. Men, women, and children ride him. He always leads the caravan of camels, mules, or horses. Everybody uses him; nobody loves him; everybody abuses him. The Eastern world could not live without him.

The prince of burden-bearers is the camel. He is in truth the "ship of the desert." He bears enormous loads, of from six to eight hundred pounds, twenty-five to thirty miles a day. But for him all inland commerce would cease.

From the far-off, isolated hamlets of the East he gathers up and brings down to the seaport towns, or to the few through which a railway passes, the products of the country, and returns laden with the merchandise of Europe. Awkward beyond description, with his short body and long neck and legs, moving noiselessly over the ground with his soft-padded feet, you wonder, and yet shrink from him. Diabolical in expression, he is ugliness personified.

In the breeds of cattle there is room for great improvement. There are none of superior breed; and beef of good quality is not to be found in Turkey. The best quality, which is imported, is from South Russia. Until the time of the Crimean War such a thing as beefsteak was hardly known. It was mutton, mutton everywhere. Well do we remember the first morsel of steak we ever tasted. It was fried in a frying-pan, done till there was n't a drop of juice in it, and came up garnished with garlic and onions, and covered over with parsley. But what a flavor it possessed! "Something original and authentic," as Howells puts it, "mingled with vague reminiscences of canal-boat travel and woodland camp." Like the Englishman "who had no prejudices," from that moment I hated mutton.

The ox is small and hardy, but for heavy draft the buffalo is in constant use. This ugly-looking animal, whose paradise is a mud-hole, into which he can sink with the exception of his mouth and eyes, is very powerful. The female gives a milk that is rich, though somewhat strong and odorous. The manufacture of butter is infamously bad. The churns used are of various kinds. Earthen jars, shaped like a barrel, swelling in the centre, are filled with cream and then tilted up and down. The trunk of a tree, hollowed out

and boarded at both ends, is hung to a beam and swung to and fro. The skins of animals, particularly the goat, with the hair inside, are sewed in the form of a bag, and, being filled with cream, are rapidly rolled over and over on the ground until the butter comes. The gypsies, it is said, when starting on their journeys, will fill the skins with cream, and, sitting upon them, will find butter when they reach their journey's end. It is said that in early times the missionaries used to punish their children by putting them under the table and making them shake a bottle of milk. Sawing the butter is a very necessary operation, and all well-provided families have a fine-tooth saw with which to extract the hairs from the butter. The natives melt the butter for cooking, and easily strain out the hair. But no attempt is ever made to eat it on bread.

A missionary on the rich plains of the Sangarius tried to introduce a reform in the process of churning. He showed the farmers that in the markets of Constantinople their butter brought less than one-half the price of good English or Italian butter. He tried to introduce the American churn, and the mode of working, salting, and putting down. It is needless to say the attempt was an utter failure. They had always *had* hair and butter together, and they always would have, till death. In Proverbs (xxx, 33) we are told: "Surely the churning of milk bringeth forth butter, and the wringing of the nose bringeth forth blood." There would seem to be at first sight, no special analogy between the process of churning and pulling a man's nose until the blood comes, if you consider our method alone. But, in the native operation, the comparison is a just one and natural: for the women seize and squeeze and wring the milk in their

goat-skin bottles in a vigorous way which would soon fetch the blood if applied to the nasal organ of some antagonist.

The mountains and plains of this great empire, both in Europe and Asia, afford unrivaled facilities for the keeping of sheep. In the summer the flocks pasture on the mountain slopes, while the shepherds with fire-arms and dogs keep careful watch against the attacks of wild beasts. In the winter, immense flocks migrate from European Turkey into the milder climate of Asia Minor. There is such an enormous extent of vacant pasture-land that no expense is incurred, except in the transportation of so many animals across the Bosphorus or Dardanelles.

The fat-tailed Caramanian sheep are the most singular and surprising animals to be met with in Turkey. While yet lambs, the tail begins to broaden and thicken with a fat which is regarded by the natives as a great delicacy, and equal to butter for cooking purposes. In a few months the weight and size of the tail becomes a positive burden to the animal, furnishing, in those creatures that have been carefully fed and tended, from fourteen to twenty pounds of pure fat, superior to lard, and entering into competition with butter. If, as often happens, the end of the tail drags upon the ground, so as to endanger excoriation, a very simple though laughable remedy is resorted to. A little carriage, rudely made, with wheels about six or eight inches in diameter, is placed under the end of the tail, which is thus sufficiently sloped out from the body, and is so harnessed to the lord (or lady) of the tail, that it is borne about without injury, and may "laugh and grow fat" at its leisure. You may thus often see a sheep going on foot, and its tail following in a carriage. The natives will tell you that these carriage

tails sometimes produce seventeen okes (forty-six and three quarters pounds) of pure fat; but the Oriental imagination is prone to get the better of the real facts, and the figures above given (fourteen to twenty pounds) are perhaps nearer the truth. It is sufficient to know that the tails do sometimes become so heavy as to anchor the sheep and cause its death, if suitable precautions are not taken.

According to a recent article in the "Country Gentleman," these sheep are found in Syria, Egypt, north Africa, Asia Minor and western Asia, and were described by Herodotus and Aristotle more than two thousand years ago; but the writer could not resist adding a pound or two to his tale, and he claims that "animals are not rare whose tails weigh from one hundred to one hundred and twenty pounds, while the average weight is forty to sixty."

Another fact is peculiar about the flocks of sheep and goats. The ewes are milked as regularly as we milk our cows, and it is done with wonderful rapidity. Two grasps of the overflowing udder, and it is emptied. Among my earliest recollections is that of a flock of goats being driven every morning to my father's door and there milked, in order to insure our receiving our day's supply of the lacteal fluid in its virgin purity. Immense quantities of cheese, made from the milk of sheep and goats, moulded into disks twelve to fourteen inches in diameter and an inch thick, are transported from the interior of the country to the markets of the great city.

Of the Angora goats, with their long, fine, silky hair, natives of the rocky slopes in the province of Angora, I have not the heart to speak. From the silky fibre of their hair, skilled workmen had long supplied the world with rare

and high-priced goods of female apparel. But, with the priceless blessings of free trade, the country was flooded with a cheap imitation made by machinery. The flocks dwindled away, the occupation of whole villages was gone, and abject poverty and ruin overtook the wretched inhabitants.

You will perhaps have noticed the absence of any allusion to the swine among the domestic animals enumerated. The reason is obvious. Considered as unclean beasts by both Turk and Jew, it is only in Christian villages that they are to be found. What was cursed under the Mosaic dispensation and continued to be cursed under the Mohammedan, is still looked upon with suspicion by the faithful; and, though their mouths may water as the delicate aroma of roast suckling pig arises on the air, yet they rigidly abstain from any participation. Two infallible signs, one negative and one positive, disclose the character of a Christian town in Turkey, — the absence of minarets and the presence of pigs. In consequence of the pig being in this manner a Christian animal, there is an oppressive tax on pigs, levied when the animal is three months old. The risk incurred from the payment of so large a tax (ten piasters) on so young an animal is so great that many of them are killed shortly after birth, and an important article of food is lost to the peasantry.

I have rambled on longer than I intended, for one reminiscence has led on to another; but I cannot close without alluding to one more fact which must be patent to every thoughtful observer traveling in the Levant to-day, and that is, the constancy of the Eastern mind to itself, and the immutability of its customs and observances. The same

scenes penned by the writers of Holy Writ two thousand years ago are repeated to-day unchanged.

Rebekah still lets down her pitcher at the wayside fountain, and helps the thirsty Labans to a refreshing draught.

The tender Ruths still glean where Boaz reaps.

The Miriams still dance and sing the song of triumph, as they go forth to welcome home their conquering heroes.

The women still in humble posture grind their corn, as, sitting on the ground, they whirl the upper grindstone round upon the nether one.

Still, at the evening meal, reclined about the table, raised but a few inches from the floor, they dip their piece of unleavened bread into the common dish, just as in the days when Jesus said, "He that dippeth his hand with me in the dish, the same shall betray me."

THE INFLUENCE OF THE MONKS IN AGRICULTURE

I HAVE chosen for my subject this afternoon "The influence of the monks in agriculture," — the influence of men who, taking their lives in their hands, flung themselves into the wild forests and abandoned wastes of Europe and the remoter East, and wrought a work which, so far as we can judge, could have been wrought in no other way; "for it was done by men who gave up all that makes life dear and worth the living, for the sake of being good themselves and making others good." They were the pioneers of a physical, no less than a moral, civilization. Never were instruments less conscious of the high ends they were serving, and never were high ends more rapidly or more effectually achieved. Apostles of the Lord, they pushed out into the midst of tribes only wilder and more savage than the country they inhabited, determined to bring them within the fold. But the instinct of self-preservation compelled them first to turn aside to reclaim and till the soil, to construct houses, to provide themselves with the necessities of life, to practise the arts and sciences in order that they might live. And so, ministering to their bodily wants, they ended by forcing upon their barbaric neighbors, first, civilization, and then Christianity. Kingsley, in his spirited way, tells us: "They accepted the lowest and commonest facts of the peasant's life. They outdid him in helplessness and loneliness, in hunger and dirt and slavery, and then said: 'Among all these

I can yet be a man of God, wise, virtuous, free and noble in the sight of God, though not in the sight of Cæsar's courts and knights.'"

The time at which this great work began was almost coincident with the Christian era, and lasted through what we are pleased to call the dark or mediæval ages, which, however, when we come to examine them, we find to our surprise filled with light, with charities of the noblest kind and enduring monuments of Christian grace.

With the fall of the Roman empire and the influx of the great waves of barbaric tribes that swept over Europe, civilization was stamped out and Christianity ceased to exist. The cleared lands and cultivated fields reverted to forest and moor, cities and towns lay in ruins, and the citizen was reduced to the condition of the beggar and the slave. The despairing cry of St. Jerome from his peaceful hermitage at Bethlehem fell vainly on the ears of a hopeless world: "For twenty years Roman blood has been flowing every day between Constantinople and the Julian Alps. Scythia, Thrace, Macedonia, Dacia, Thessalonica and Epirus all belong to the barbarians, who ravage, rend and destroy everything before them. How many noble matrons and maids have been the toys of their lust; how many bishops in chains, priests butchered, churches destroyed, altars turned into stables, relics profaned! Sorrow, mourning and death are everywhere. The Roman world is crumbling into ruins." And what St. Jerome so vividly describes of the Eastern world was equally true of the West. France, Germany, Spain, Italy, and England had all fallen a prey to the never-ending swarms that poured across the barrier rivers, the Rhine and the Danube.

But out of the midst of this universal chaos and desolation now burst forth an army of Christian soldiers. Some, taking upon themselves vows of solitude and self-renunciation, penetrated the wilderness to live as ascetics, — a life of prayer and holy calm, withdrawn from the turmoil and wretchedness of the world; others, seeking out the most inaccessible and unfrequented spots, erected their buildings, and, gathering about them their disciples, entered upon the true monastic life; while yet others again, as missionaries, advanced boldly into the enemy's dominions, to conquer back for the church the territory it had lost, and to gather into its folds these new peoples and new tribes whose invasion had destroyed the Roman world. And it was their glory that in a few short centuries they succeeded. But, whether as hermits or missionaries or monks they abandoned their homes and embraced this painful life, the result was in every case the same, — agriculture and the arts first, and civilization and Christianity last. It could not be otherwise; the necessities of the case compelled it. Solitaries who shrank from all contact with humanity were becoming the unconscious instruments of the civilization and conversion of savages and heathen. They penetrated valleys choked with rocks, brambles, and brushwood, the overgrowth of generations interlaced into a barrier not to be penetrated by anything weaker than their untiring energy. They are the sternest of ascetics and most isolated of hermits. But their rest is broken by penitents who come to ask their blessing and who implore permission to live under their authority. The solitary cell of the hermit becomes the nucleus of a society, — the society a centre of many congregations radiating from it. The little plot of herbs becomes

a garden; the garden stretches out into fields of waving grain; the hills are clothed with vines, the valleys bowered in fruit trees.

Opening their doors to all, receiving under their shelter and protection the oppressed, the weak, the criminal, the slave, the sin-sick soul, weary of this life and despairing of another, the mourner and the comfortless, it frequently happened that the inmates of these cloisters, those attached to one community and under one jurisdiction, numbered thousands. Lecky tells us that in one city on the Nile there were twenty thousand monks and ten thousand nuns, — the religious far outnumbering the other classes of society. In England and Ireland these monastic communities assumed a peculiar form. Kings, followed by their entire tribe, presented themselves at the baptismal font and came under religious rule; and frequently these kings were chosen abbots, and as in their worldly life they had ruled their subjects, so in their spiritual life they continued to be their recognized head and leader. To such an extent was this carried, that in England in the course of a single century there resulted an alarming diminution of the military resources of the country; and there is still extant a letter of the great churchman, the Venerable Bede, in which, imploring the kings and bishops to put a stop to the grants of land for monastic purposes, because subsequently misused, he says: "Many Northumbrians put aside their arms, cut off their hair and hasten to enroll themselves in the monastic ranks, instead of exercising themselves in their military duties. The future alone will tell what good will result from this." Perhaps some of you will recollect a more modern instance in the law of Peter the Great, forbidding any State

officer, citizen in business, or workman, to enter the cloisters, declaring that he would not consecrate to idleness subjects that might be useful.

To support now these throngs of people that assumed the cowl, it was necessary for the monks to devote themselves to agriculture and horticulture, and this they did in a most successful manner. "It is impossible to forget," says the great historian of the monks, "it is impossible to forget the use they made of so many vast districts (holding as they did one fifth of all the land in England), uncultivated and uninhabited, covered with forests, or surrounded with marshes. For such, it must not be forgotten, was the true nature of the vast estates given to the monks, and which had thus the double advantage of offering to communities the most inaccessible retreats that could be found, and of imposing the least possible sacrifice upon the munificence of the giver." Kings and barons vied with each other in their eagerness to save their souls from hell and pave the way to heaven by giving to these poor monks land the most desolate and unfertile, land no other human beings would inhabit, land covered with sand or rock or buried in water for the greater part of the year.

How man or woman born could live in such unwholesome and unproductive spots and thrive seems absolutely miraculous, but these patient toilers of the church surmounted all the difficulties which stared them in the face, of beginning the cultivation of a new country.¹ The forests were cleared, the marshes made wholesome or dried up, the soil irrigated or drained, according to the requirements of each locality, while bridges, roads, dykes, havens, and

¹ Montalembert, *Monks of the West*.

lighthouses were erected wherever their possessions or influence extended. The half at least of broad Northumberland, covering an area of about two thousand square miles, was lost in sandy plains and barren heaths; the half at least of East Anglia and a considerable part of Mercia were covered with marshes, difficult of access. Yet in both these regions the monks substituted for these uninhabitable deserts fat pasturage and abundant harvests. The latter district, the present name of which (the Fens) alone recalls the marshy and unwholesome nature of the soil, became the principal theatre of the triumphs of agricultural industry, performed by the monks. Medchampstead (now Peterborough), Ely, Croyland, Thorney (now Southampton), Ramsay, were the first battlefields of these conquerors of nature, these monks who made of themselves ploughmen, breeders and keepers of stock, and who were the true fathers of English agriculture, which, thanks to their traditions and example, has become the first agriculture in the world.

Perhaps in no better way can I more graphically bring before you the immense work of the monks than by giving you a picture of the fen district of Southampton before Thorney Abbey was founded, and then reading you the description of this abbey by the great bishop of Tyre, William of Malmesbury. Southampton is a peninsula making down between the mouths of the Itchen and the Test or Anton into the tide-swept channel that separates it from the Isle of Wight. It was nothing but a vast morass.¹ The fens in the seventh century were probably like the forests at the mouth of the Mississippi or the swamp shores of the

¹ Kingsley, *Hermits*.

Carolinas. It was a labyrinth of black, wandering streams; broad lagoons, morasses submerged every spring-tide; vast beds of reed and sedge and fern; vast copses of willow, alder, and gray poplar, rooted in the floating peat, which was swallowing up slowly, all-devouring, yet all-preserving, the forests of fir and oak, ash and poplar, hazel and yew, which had once grown in that low, rank soil. Trees torn down by flood and storm floated and lodged in rafts, damming the waters back upon the land. Streams bewildered in the forests changed their channels, mingling silt and sand with the black soil of the peat. Nature left to herself ran into wild riot and chaos more and more, till the whole fen became one dismal swamp.

Four or five centuries later William of Malmesbury visits the place and leaves us this charming picture of the change:¹ "It is a counterfeit of Paradise, where the gentleness and purity of heaven appear already to be reflected. In the midst of the fens rise groves of trees which seem to touch the stars with their tall and slender tops; the charmed eye wanders over a sea of verdant herbage, the foot which treads the wide meadow meets with no obstacle in its path. Not an inch of land as far as the eye can reach lies uncultivated. Here the soil is hidden by fruit trees; there by vines stretched upon the ground or trailed on trellises. Nature and art rival each other, the one supplying all that the other forgets to produce. O deep and pleasant solitude! Thou hast been given by God to the monks, so that their mortal life may daily bring them nearer to heaven."

Everywhere we see the monks instructing the population in the most profitable methods and industries, naturalizing

¹ *Chronicle of William of Malmesbury.*

under a vigorous sky the most useful vegetables and the most productive grains, importing continually into the countries they colonized animals of better breed, or plants new and unknown there before; here introducing the rearing of cattle and horses, there bees or fruit; in another place the brewing of beer with hops; in Sweden, the corn trade; in Burgundy, artificial pisciculture; in Ireland, salmon fisheries; about Parma, cheese-making, and finally occupying themselves with the culture of the vine, and planting the best vineyards of Burgundy, the Rhine, Auvergne, and England; for the monks of Croyland introduced the vine even into the fens of Ely and in other countries where it has now disappeared. They were the first to turn their attention to improving the breeds of cattle, declaring that the promiscuous union of nobody's son with everybody's daughter resulted in half-starved oxen "euyll for the stone and euyll for digestyon, fitter to be used outside as a water-prooffe than inside." They taught the necessity of letting the land be fallow for a time after several years of continuous cropping; they practised rotation of crops, using clover as the last in the series; they improved the different varieties of fruits and learned the art of grafting, budding, and layering; they taught by precept and example the value of drainage and irrigation. In short, in everything making for progressive agriculture we find them blazing the way; and when the monasteries were suppressed by Henry VIII, a death-blow was struck for a time at scientific agriculture and horticulture.

And what they did for England was paralleled by their work upon the continent. Need we point to any other instance than that of Vitruvius peopling the sand-banks of

Flanders or Belgium with religious, who, by their unwearied industry, reclaimed those arid wastes and turned those burning sands into one vast garden? Need we speak of the country separating Belgium from Holland, and how it was cleared by the monks who taught its wild inhabitants agriculture as well as Christianity? In a manuscript bearing date of 1420 a monk proposed the artificial propagation of trout. It was the monks of Fulda who started the celebrated vineyards of Johannisberg, the Cistercian monks that of Clos Vougeot. The Benedictines brought vines from Beaune to plant on the banks of the Allier. The monks of Mozat set out walnut trees, still so abundant in Lower Auvergne. They first cared for the preservation of forests as affecting climate and fertility. They stored up the waters of springs and distributed them in drought; and it was the monks of the abbeys of St. Laurent and St. Martin who first brought together and conducted to Paris the waters of springs wasting themselves on the meadows of St. Gervais and Belleville; and in Lombardy it was the followers of St. Bernard who taught the peasants the art of irrigation, and made that country the most fertile and the richest in Europe.

We approach now another and higher phase of monastic life. In its earlier days we find the monks engaging in the practice of agriculture from the necessities arising out of the conditions in which they were placed. They had ploughed, they had sowed, they had reaped, in order to preserve their lives. But now agriculture becomes a part of their religion, and the great St. Benedict enjoins upon his disciples three objects for filling up their time: Agriculture, literary pursuits, and copying manuscripts.¹ He

¹ Weishardt, *History of Monasticism*.

comes before the world saying: "No person is ever more usefully employed than when working with his hands or following the plough, providing for the use of man. . . . He bent himself to the task of teaching the rich and the proud, the poor and the lazy, the alphabet of prosperity and happiness."

Agriculture was sunk to a low ebb. Marshes covered once fertile fields, and the men who should have tilled the land spurned the plough as degrading. The monks left their cells and their prayers to dig ditches and plough fields. The effort was magical. Men once more turned back to a noble but despised industry, and peace and plenty supplanted war and poverty. So well recognized were the blessings they brought, that an old German proverb among the peasants runs, "It is good to live under the crozier." They ennobled manual labor, which, in a degenerate Roman world, had been performed exclusively by slaves, and among barbarians by women. For the monks, it is no exaggeration to say that the cultivation of the soil was like an immense alms spread over a whole country. The abbots and superiors set the example, and stripping off their sacerdotal robes toiled as common laborers. Like the good parson whom Chaucer portrays in the Prologue to the "Canterbury Tales": —

This noble ensample unto his scheep he gaf
That first he wroughte and after that he taughte.

When a papal messenger came in haste to consult the Abbot Equutius on important matters of the church, he was not to be found anywhere, but was finally discovered in the valley cutting hay. Under such guidance and such example the monks upheld and taught everywhere the

dignity of labor, first, by consecrating to agriculture the energy and intelligent activity of freemen, often of high birth and clothed with the double authority of the priesthood and of hereditary nobility, and second, by associating under the Benedictine habit sons of kings, princes, and nobles with the rudest labors of peasants and serfs.

There is still another phase of this monastic life. We have seen that the one universal and regular duty imposed was the necessity of being constantly employed. It was work for the sake of work. The object sought was not so much what would be produced by the labor as to keep the body and mind so constantly employed that temptations could find no access and sin would therefore be escaped. Consequently it was a matter of comparative indifference what the work was. The harder and more painful and unattractive to men in general it might be, so much the better for the monk. If sufficiently difficult, the element of penance was added, and it became a still more effectual means of grace. In this way the monks did a great amount of extremely useful work which no one else would have undertaken. Especially is this true of the clearing and reclaiming of land. A swamp was of no value. It was a source of pestilence. But it was just the place for a monastery because it made life especially hard; and so the monks carried in earth and stone, and made a foundation, and built their convent, and then set to work to dyke and drain and fill up the swamp, till they had turned it into fertile plough-land and the pestilence had ceased.

The connection of the monasteries with the great centres of population to-day is an interesting one.¹ The require-

¹ Gibbins, *Industrial History of England*.

ments of the monks and the instruction they were enabled to impart soon led to the establishment in their immediate neighborhood of the first settlement of artificers and retail dealers, while the excess of their crops, their flocks and their herds gave rise to the first markets, which were as a rule held before the gate of the abbey church, or within the church-yard, among the tombs. Thus hamlets and towns were formed which became the centres of trade and general intercourse, and thus originated the market-tolls and the jurisdiction of these spiritual lords. Out of these hamlets clustered around the monasteries arose in England Southampton, Peterborough, Bath, Colchester, Oxford, Cambridge, Ely, and many others.

In the earlier days the monks had always taken the lead in farming, and if improvements were introduced it was sure to be the monks who were the pioneers. How useful the monasteries had been, and what an important factor they were, is perhaps best seen from the effect their dissolution had upon the laboring classes. Henry VIII suppressed six hundred and forty-four monasteries, ninety colleges, two thousand three hundred and seventy-four free chapels, and one hundred and ten hospitals. These held one fifth of all the land in the kingdom and one third the national wealth. At the same time nearly one hundred thousand male persons were thrown out of employment. "It is possible," says Symes in Traill's "Social England," "that the relieving of a large number of persons from the obligations of celibacy partly accounts for the great increase of the population which undoubtedly took place in Henry's reign. Moreover, experience proves that people reduced to poverty and desperation often show extraordinary recklessness in

bringing people into the world." However that may be, we find the population, from the reign of Henry VII to the death of Henry VIII, increasing from two and one half millions to four millions.

But this change in population without corresponding distribution of wealth, this transference of one third the national wealth, was attended by another still more disastrous effect, and that was "the change in the character of the demand for labor, which reduced to the ranks of the unskilled those whose skill was no longer in demand." The land taken up by the king was bestowed upon his nobles and favorites, and these, desirous of securing immediate and larger profits, enclosed immense areas and turned to the breeding and pasturing of sheep. It was the substitution of pasture for tillage, of sheep for corn, of commercialism for a simple, self-sufficing industry, of individual gain for the old agrarian partnership in which the lords or abbots, the parsons, yeomen, farmers, copyholders, and laborers were associated for the supply of the wants of the villagers.¹ A perfect frenzy for raising sheep took possession of the agricultural community. No pains were spared to increase the extent of pasturage. Small tenants were evicted, laborers' cottages were pulled down, the lords' demesnes turned into pastures, and wastes and commons which had before been open to all were now enclosed for the same purpose. Every one was now convinced that "the foot of the sheep would turn sand into gold," and hastened to substitute grazing for tillage.

But while there was this sudden and wholesale transference of the arable land to pasturage, as sudden and vio-

¹ Traill, *Social England*.

lent a change in the character of labor was required. The dog and the shepherd took the place of the ploughmen and their teams, and thus diminished the demand for labor at the very moment when the supply was increased. Very serious results followed. The poorer tenants were ruined and an immense number of persons were thrown out of employment, to become beggars and thieves. It was, says Gibbins, in the "Industrial History of England," the beginning of English pauperism. That this was no trifling change in the social condition of the people the following quotations will prove: "The Statute-book for 1489 tells us that the Isle of Wight is lately become decayed of people, by reason of many towns and villages having been beaten down and is desolate and not inhabited, but occupied with beasts and cattle; throughout England, too, we are assured that idleness daily doth increase; for where in some towns two hundred were occupied and lived of their lawful labor, now there are occupied only two or three herdsmen." Starkey, the royal chaplain in the next reign, only puts this more epigrammatically when he says: "Where hath been many houses and churches to the honor of God, now you shall find nothing but sheepcotes and stables to the ruin of men, and that not in one place or two, but generally throughout this realm." Finally, if any further evidence is wanted to show that great hardships were being entailed upon the peasantry there are the indignant words of Sir Thomas More, in which he bids us sympathize with "the husbandmen thrust out of their own, or else by covin and fraud, or by violent oppression put beside it, or by wrongs and injuries so wearied that they sell all"; and goes on to denounce the noblemen and gentlemen, yea, and certain abbots that lease

no grounds for tillage; that enclose all into pasture, and throw down houses; that pluck down towns and leave nothing standing, but only the church to be made a sheep-house.

In a word, then, the monks were the scientific farmers of the day. They had access to all the knowledge of the ancients, and the constant intercourse with their brethren in other countries kept them acquainted with methods of agriculture and products other than their own; and when their great religious houses were suppressed, agriculture, of which they had been the pioneers, came for a time to a standstill.

There were four great periods in which these disciples of civilization were steadily pushing their way into the darkness of an unregenerate world; and in like manner there were four great periods in which, in one way or another, vast estates were added to their jurisdiction and came under their kindly influence. The first, covering the first five centuries of the Christian era, may not inappropriately be termed that of the Apostles and early fathers. And I cannot help quoting here the vivid words of Hillis, descriptive of that era: "With matchless enthusiasm these young knights of the new chivalry leaped into the arena. Beginning at Jerusalem they scattered in every direction, marching forth like columns of light. When twenty years had passed Matthew was two thousand miles to the southwest. At the same time Jude was two thousand miles to the northeast. James the Less journeyed east into Judea. Paul journeyed to the west. When twoscore years had passed all the disciples save one had achieved a violent death and blazed out paths in the dark, tangled forests. And when the torch fell from the hands of these heroes, their disciples

snatched up the light and rushed on to new victories. Now that long time has passed, history has summarized the influence of these missionaries. If we ask who destroyed the great social evils of Rome, Lecky answers, 'The Christian missionaries.' Ask when the rude tribes of the northern forests began to be nations, Hallam answers, 'When Boniface crossed the Alps on his Christian mission.' Asked for the beginning of England's greatness, Green tells us the story of the two Christian teachers who one winter's night entered the rude banquet hall of King Ethelbert."

About the middle of this period commenced the hermit or ascetic life in the far East. Paul, Anthony, Pacomius, and others, gathering together the thousands of disciples that had followed them, peopled the arid wastes and rocky valleys of the Thebaid with their nuns and monks.

Next follows the missionary period, in which these devoted soldiers of the cross, pushing their adventurous way into every part of Europe, reconquered for the church the territory it had lost, and, planting their monasteries in the wildest and most unfrequented spots, became the heralds of civilization and Christianity. In this period and in the last the monasteries were largely enriched by the gifts of the faithful, — in most cases the donors begging the intercession of the monks in their behalf. Thus St. Eloysius in his charter to the monks of Solignac writes: "I, your suppliant, in the sight of the mass of my sins, and in hopes of being delivered from them by God, give to you a little thing for a great, earth in exchange for heaven, that which passes away for that which is eternal." So Peter, the Lord of Maule, says: "The prudent ant as she sees winter approach makes the more haste to bring in her stores, so as to

assure herself of abundant food during the cold weather. I, Peter, profiting by this lesson, and desirous, though a sinner and unworthy, to provide for my future destiny, I have desired that the bees of God may come to gather honey in my orchards, so that when their fair hives shall be full of rich combs of this honey, they may be able, while giving thanks to their Creator, to remember him by whom this hive was given."

Eager, ardent, and impetuous, these anchorites seemed to take the continent by storm.¹ Amid the gloom of the Thuringian forests, among the wild precipices and caves of the mountains of the Hartz, on the wild, desolate shores of the German and Baltic seas, amid the glaciers and fiords of the Scandinavian peninsula, on the banks of the Ysill and the Weser, from the Weser to the Elbe and thence to the ocean, these devoted missionaries toiled and taught and laid down their lives.

The third great period came at the close of the tenth century, and may be termed the age of expectancy and dread. All things seemed coming to an end, and the year one thousand was fixed upon as the day when the heavens should melt with fervent heat and the hills be rolled together and crushed. We can scarcely form any idea of the feverish state of mind of society. As the days sped on and the time approached for the universal dissolution of nature, the panic was at its height. Property was disposed of for a merely nominal sum, or willed to the Church, the bequest commencing with these words, "In expectation of the approaching end of the world." The monasteries and abbeys received vast acquisitions of property and were thronged with sinners

¹ McLear, *Apostles of Mediæval Europe*.

seeking a refuge within the pale of the Church. Kings laid down their sceptres and lands were left untilled. Famine and pestilence added their horrors to the universal despair. Human flesh was openly consumed and the graves of the dead were rifled to furnish sustenance to the living. Night after night, at any unusual disturbance of the elements, whole families, nay, the inhabitants of whole villages, left their beds and watched the livelong night, shivering, upon the bleak hillsides, or in the gateways of the churches. The fear of death was upon all, — God and the judgment-bar an ever-present reality. The terrors of an unknown world stared them in the face. Hell opened wide the portals of its gates, and the cries and torments of the damned seemed to rise up, upon the excited ear. “Help, Lord, for we perish! Save, Lord, from thy wrath!” was the wail of a despairing world.

Can we wonder that, in such circumstances as these, surrounded by such an atmosphere as this, the Church should gain a predominating influence, and that as a medium between God and man it should stretch forth its arm and be recognized as all-powerful and efficient? And when the last night of suspense was over and the sun had risen again, and men breathed freer and felt that the crisis was past, would they not have a feeling of gratitude that expressed itself in gifts to those whom they had learned to look upon as intercessors?

The fourth and last period is that of the Crusades, when all Europe, stirred by one single impulse, leaps into vigorous life, and hurries, men, women, and children, to the rescue of the Holy Land. Of the universality of this movement, the last impulse of the migratory instinct among these tribes so

lately settled down, William of Malmesbury, afterwards Bishop of Tyre, has left us a striking account in his Chronicle. Having said that after the great council of Clermont every one retired to his home, he continues thus: "Immediately the fame of this great event being spread through the universe, penetrates the minds of Christians with its mild breath, and wherever it blew there was no nation, however distant or obscure it might be, that did not send some of its people. This zeal not only animated the provinces bordering on the Mediterranean, but all who had ever heard the name of a Christian in the most remote isles and among barbarous nations. Then the Welshman abandoned his forests and neglected his hunting; the Scotchman deserted his fleas, with which he is so familiar; the Dane ceased to swallow his intoxicating draughts, and the Norican turned his back upon his raw fish. The fields were left by the cultivators and the houses by the inhabitants; all the cities were deserted. People were restrained neither by ties of blood nor the love of country; they saw nothing but God. All that was in the granaries or destined for food was left under the guardianship of the greedy agriculturist. The voyage to Jerusalem was the only thing hoped for or thought of. Joy animated the hearts of those who set out; grief dwelt in the hearts of those who remained. Why do I say of those who remained? You might have seen the husband setting forth with his wife, with all his family; yea, you would have laughed to see all the penates put in motion and loaded upon carts. The road was too narrow for the passengers, more room was wanted for the travelers, so great and numerous was the crowd."

From this great movement, which lasted two hundred

years, the Church gained an enormous increase of power and territory. The secular princes ruined themselves for the cause of Jesus Christ, whilst the princes of the Church took advantage of the fervor of the Christians to enrich themselves. It bought up for a mere song an immense extent of property, which the owners disposed of to raise the funds requisite to equip them for this long journey, and thus laid the foundation for those extensive church endowments which in the time of Luther and the French Revolution excited so bitter a controversy.

Summing up then the influence of the monks, we can outline it thus: The rule of St. Benedict presented agriculture as an occupation useful and worthy of a truly religious person whose life was to be spent between manual labor and spiritual contemplation.¹ He taught that the brothers ought not to feel themselves humiliated if poverty compelled them to gather with their own hands the products of the soil. First, then, they themselves cultivated the ground, and this has been continued even until our own time in certain orders. The monks of Citeaux were particularly distinguished in this respect, for in their earlier days it was not permitted them to possess any revenues. When a new monastery was founded there was ordinarily bestowed upon it land not yet broken or land which, having been devastated by the incursions of the enemy, had become useless to its owner. Sometimes it was covered with forests or with water, or it was a sterile valley surrounded by lofty mountains, or a country in which there was no arable land and it was necessary for the monastery to purchase earth in the neighborhood and bring it in. The

¹ Hurter, *Geschichte Papst Innocenz III und seiner Zeitgenossen*.

monks cleared with their own hands the forests and erected peaceful habitations for man in the spots where formerly had lurked the wolf and the bear. They turned aside devastating torrents, they restrained, by means of dykes, rivers accustomed to overflow their banks; and soon the deserts where before was heard only the cry of the owl and the hiss of the serpent were changed into smiling fields and fat pasturage. The love of solitude, the desire of placing by every means possible a check to human passion, inspired them to seek out sites the most unhealthy and to render them by cultivation not only sanitary but even profitable. Modern writers recognize that Italy, devastated by the repeated incursions of Barbarians, owed its restoration, its tranquillity, and the preservation of the last remains of art to the monasteries. Wherever we see them rise we see agriculture reappear, — the people relieved from their burdens, and kindly relations established between the master and the slave.

In the twelfth century impenetrable forests still covered the valley of the Jura. A monastery of the order of Prémontré cut down the first trees in their forests and attracted there the first colonists. A monastery of the order of Cîteaux had but a short time previously restricted within its banks the river Saone, which covered with its overflow the foot of Rodomont. It cleared the soil of the virgin forest where now is situated the little city of Rougemont with its two thousand inhabitants. At great expense and by almost superhuman effort dykes were opposed to the waves of the ocean, and they snatched from the element a soil which the work of man changed afterward into fertile fields. Marshes became arable land and the home of man. The monks

loved to acquire these marshes in order to render them amenable to cultivation, and frequently even their monasteries rose out of the bosom of the waters. When it was impossible to drain them, or when economy demanded it, they brought straw and laid it down in bundles, and upon these bundles earth was placed. They dug out ponds into which they collected the superfluous waters by tiles used to drain the land. In this way the monastic orders extended the cultivation of the soil from the south of Europe even to the most distant north. They facilitated communication between different points, and were the organizers of different kinds of industry. Sweden owes to them the perfection of its race of horses and the beginnings of commerce in wheat. On the island of Tuteron, where was formerly located a monastery of the order of Citeaux, plants still grow spontaneously, which in the neighborhood one is compelled to cultivate with care. The Abbot William brought the first salad from France into Denmark. If in the eleventh century England could boast of an agriculture more advanced than many other countries, if it presented less forest and heath and more cultivated lands and fat pasturage, it owes it to the zeal of the monks who had found there in early times a hospitable welcome. It was the monks who in Flanders cleared the forests, drained the marshes, rendered fertile the sandy lands, snatched from the sea its most ancient possessions and changed a desert into a blooming garden.

There were certain abbeys, especially in England, that took the greatest care not to clear the country of all trees. It is related of Alexander, the first Abbot of Kirkstall, that, foreseeing the necessities of the future, he forbade the cut-

ting down of the vast forest he had acquired by divine protection, and preferred to purchase elsewhere the timber he required in erecting his large buildings. The monks of Pipwel in Northampton did not cease to plant trees in their forests and were said to watch over them as a mother over an only child. For their own private necessities they made use of dead, dry wood and reeds.

As a rule, the monks took great care in the cultivation of their land to conform to the laws of climate, soil, and locality. In the north they devoted themselves especially to the raising of cattle, and in these countries the greatest privileges that could be given them were woods and the right to allow the swine to wander in them. In other countries they occupied themselves in the cultivation of fruit trees, the improvement of which was their work. It was the celebrated nursery of Chartreuse of Paris that up to the epoch of the Revolution furnished fruit trees to almost the whole of France, and the remembrance of their labors still lives in the name of certain delicious fruits, such as the *doyenne* and *bon chrétien* pears. The finest orchards and vineyards belonged to the monasteries. All the chronicles speak of the cultivation of Mt. Menzing in the Canton of Zug, which produced abundantly wheat and fruits and particularly nuts. The friendly relations existing between the monasteries, the interchange of visits between the monks of the different establishments, were of great advantage, for foreign plants and fruits were exchanged and cultivated.

The monks were the first to devise tools for gardening. They had calendars in which were set down all that experience had taught them respecting the breeding of cattle, the sowing of land, the harvesting of crops, and every kind of

plantation. William of Malmesbury boasts of the fertility of the valley of Gloucester in wheat, in fruits, and in vineyards, adding that the wines of this province are the best in England and scarcely yield in quality to the wines of France. The best vineyards of Germany not only belonged to the monasteries, but had been planted by them, and we are forced to recognize the judgment with which these first planters selected their grounds. Tradition tells us that the monks of St. Peter in the Black Forest planted the first vines in the neighborhood of Weilheim and Bissingen, and the wine of this latter place is still the best in the whole country. The monks of Lorsch planted the vineyards of Bergstrasse and those along the banks of the Rhine. Epicures when drinking the delicious wine of Johannisberg still recall with gratitude the monastery of Fulda. In every country of Europe the monks stimulated the progress of agriculture as much by their personal efforts as by the example they gave to others. It was fortunate for the world that the first founders of the religious orders enjoined upon their disciples manual labor rather than spiritual, and that the first monasteries were founded not in the cities, as those which were founded later, but in the wildest and most unfrequented spots, which were transformed by their activity and labors into the homes of thousands of peaceful and industrious men.

What I have said of the monks of Europe is equally true of the missions of this country. There was the same evolution, and at their dissolution the same fate.

When Father Junipéro Serra and his followers came as Franciscan missionaries and established the chain of missions at San Diego, Los Angeles, San Gabriel, Monterey,

Santa Clara, San Buenaventura, San Juan Capistrano and San Francisco (Dolores), and San Luis Obispo, between 1767 and 1783, they estimated that there were over eighty thousand Indians in Alta California. At the mission of San Gabriel there were about seven thousand. The priests wrote that they had never found anywhere such tractable and energetic savages as those in California.¹

After a few years the missionaries were never afraid to trust their lives and property among the Indians. The fathers taught the Indians at the several missions to sow wheat, grind corn, till the soil, raise herds of cattle, dress hides, and make their clothing. The priests brought grapevines, olives, fruits, and nuts from their old homes in Spain and Castile, and taught the Indians how to cultivate them in California soil. In time the missionaries had induced all the Indian families to come and dwell in pueblo communities about the missions, where the Spanish padres were monitors, socially, industrially, and religiously. When the missions were legally disestablished by order of the Mexican government, and the lands were partitioned to Mexican families, the herds and flocks sold, and the missionaries told to seek other walks of life, the Indian pueblos soon went to ruin. The Indians themselves wandered aimlessly away, settling in one place until driven to another by the white man. No one attempted to preserve their moral condition, and to the natural savage inclination for licentiousness was added the bad example of the low whites of the frontier of those days.

My friends, I have outlined to you in briefest manner to-day the work of these grand old monks during a period of

¹ Bancroft, *Pacific States* ; Griswold, *Spanish Missions*.

fifteen hundred years. They saved agriculture when nobody else could save it. They practised it under a new life and new conditions when no one else dared undertake it. They advanced it along every line of theory and practice, and when they perished they left a void which generations have not filled.

THE MASSACHUSETTS AGRICULTURAL COLLEGE¹

IN 1862, when the nation was struggling with the most gigantic rebellion the world has ever seen, Congress, with a wise foresight seldom equaled, and a reversal of the old motto, "In time of peace prepare for war," calmly turned from the perplexing questions of the conflict and considered and passed an act donating to the "several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts," public lands equaling in amount thirty thousand acres for each senator and representative then in Congress. In return for this donation it stipulated two things: first, that the income of the fund derived from the sale of those lands should be held inviolably for purposes of instruction; and, second, that military instruction should be given, for which a regular army officer would be detailed by the United States government. Under the provisions of this endowment fifty-two colleges and schools have been established, either as independent organizations or as colleges of universities already existing, with a teaching force of about 900, and an attendance of some 15,000 students.

Let it be clearly understood at the outset that these are not exclusively *agricultural* colleges, but institutions designed for the benefit of the industrial classes. "Without excluding any studies recognized as forming part of

¹ Reprinted from the *New England Magazine*, by permission of the publishers.

a liberal education, they are directed to teach such branches of learning as are related to agriculture and the mechanic arts, with the declared object of providing for those classes a liberal and practical education in the various pursuits and professions in life." It has resulted from this that, adapting themselves to the individual needs of their respective states, some are exclusively agricultural, while others combine the agricultural with the mechanical. Three things are named in the organic law: agriculture, mechanic arts, and military tactics. The name "agricultural" used alone is therefore as misleading as that of "mechanical" or "military" would be.

A quarter of a century has passed since the passage of the act, and sufficient time has now elapsed to show its merits or defects. The grant was originally based upon representation in population, resulting in very unequal endowments, the smaller states receiving a much smaller amount than the larger ones, while the expenses of maintenance were about the same. Again, it was found that institutions for teaching natural science required a much larger outlay for the "plant" and for their annual work than purely literary institutions. The scientific work required to be done in the course of instruction and experiment demanded an extensive equipment in the way of laboratories, machine-shops, apparatus, farms to be used for purposes of experiment, cattle to be tested for their qualities, etc. In the twenty-five years past the field of science had so greatly enlarged, and the demands made upon the colleges so greatly increased, that none but the wealthier institutions could keep pace with them, or even measurably answer the requirements of the times. To

provide then for this growing demand for instruction in the sciences, with special reference to their applications in the industries of life, and to compensate for the inadequateness of the original endowment, Congress has this year [1890] passed an act, supplementing that of 1862, in further aid of the agricultural and mechanical colleges, granting an equal amount to each state. In doing this it has but followed the general tendency of the age. "The government of every leading country outside of the United States has recognized the necessity of providing on a large and generous scale for the establishment and maintenance of scientific instruction of every grade, from the primary to the highest, and it is everywhere regarded as one of the first duties of statesmanship to see that the citizens of the country are not left behind in the race of modern competition for lack of any resource that science can bring to their aid. The margin of profit in the competition of modern industries is so small and so closely calculated that *the best instructed people will be the winning people.*"

The Massachusetts Agricultural College is located at Amherst. The act of incorporation by which it was established became a law April 29, 1863, while the acceptance of the congressional grant was declared eleven days before. The College is under the control of a board of trustees, consisting of the Governor of the Commonwealth, the Secretary of the Board of Education, the Secretary of the Board of Agriculture, and the President of the Faculty, as *ex-officio* members, and fourteen others appointed by the Governor for a term of seven years. The appointed members are divided into seven classes, so that two vacancies in their number regularly occur each year. The board was

organized November 8, 1863, with John A. Andrew as president, Allen W. Dodge as vice-president, and Charles L. Flint as secretary. The question of the location of the college was the occasion of considerable debate. A number of influential men, including Governor Andrew, Professor Agassiz, and President Thomas Hill, favored making the agricultural college a department of Harvard. The decision of the legislature and the trustees was in favor of a separate institution. It was characteristic of our great war governor, that no sooner was the decision of the legislature made in favor of a separate institution, than, abandoning all his previous opinions, he entered heartily into this plan and coöperated to the extent of his power. Several towns offered to comply with the requirement of the legislature, that \$75,000 for the erection of buildings be pledged before any portion of the public funds should be given to the college. Amherst was finally selected. On the 29th of November, 1864, the Hon. Henry F. French was elected president of the College. He was a man thoroughly identified with agricultural pursuits, had written a work on drainage, and was widely known by his contributions to the different journals. It was felt that his knowledge of the subject and his large experience in men and affairs ensured his success; but he failed to meet the demands of the situation; and after two years, a difference of opinion having arisen between himself and the trustees as to the proper site for the college buildings, he resigned. Ill luck seemed destined to pursue the College at its founding; for his successor, Professor Paul A. Chadbourne, for many years an enthusiastic and successful instructor in the natural sciences at Williams College,

was compelled to resign in a few months, by reason of ill-health. The trustees then elected Professor William S. Clark, who had been for years interested in the movement for agricultural education, and who was at that time filling the chair of chemistry and botany in Amherst College. He was a man of singular enthusiasm and energy, and to him more than any one else the College owes the measure of success it has attained. The course of study marked out by him has been substantially followed ever since. Resolved on having the best, he quickly gathered about him a corps of instructors that made the College at once leap into prominence; and the series of novel experiments he conducted relating to the circulation of sap in plants and the expansive force exerted by the vegetable cell in its growth, caused the gifted Agassiz to remark that if the College had done nothing else, this alone was sufficient to compensate the state for all its outlay. The squash he had selected for observation, in its iron harness, lifting five thousand pounds before it had ceased to grow, excited attention far and wide, and was visited by thousands.¹ But his best work was as an educator. Bringing to the lecture-room that intense enthusiasm and personal magnetism so characteristic of the man, he quickly established a bond of sympathy between teacher and scholar that was never broken. The same brilliant qualities that attracted men in the outside world made themselves felt in his teaching. The dry details of science were enlivened by the light play of his fancy, and the charming method of his teaching seldom failed to arouse the dullest intellect.

The College was opened to receive students on the 2d

¹ See College Report, 1875.

of October, 1867, and forty-seven students were admitted before the close of the first term. Never will the writer of this article forget the remark of President Clark, as we drove over together, on the opening day, to the place of examination: "I do not know of a single man that is coming to-day, but I believe the heart of the old Bay State will beat true to the opportunity presented it." And when we found twenty-seven young men awaiting the ordeal, his joy knew no bounds, and I think he was inclined to admit the whole number at once, without further trial. During his administration the perpetual fund for the maintenance of the College was largely increased by the generosity of the state, new buildings were erected, and the faculty was enlarged. The College also entered into an agreement to represent the agricultural department of Boston University, the matriculants of the one being eligible to take the diploma of the other.

The buildings of the Massachusetts Agricultural College at the present time include a laboratory, botanic museum, two plant-houses, dormitories containing recitation-rooms, a chapel-library building, club-house, farmhouse with barn and sheds, drill-hall, and five dwelling houses, representing a total value of about \$200,000. The farm consists of 384 acres, some eighty acres of which are set off for experimental purposes, and the rest divided between cultivated, grass, and wood-land. It is located on the eastern water-shed of the Connecticut River, bounded west by a tributary of that stream, with a rivulet running through it from southeast to northwest, emptying into the tributary. The land adjacent to these streams is rolling and high enough to give good drainage; the

soil, a heavy, sandy loam, with underlying clay. The eastern and highest part of the farm is drift, covered with gravelly loam, with occasional pockets of heavy, sandy loam. Much of this part of the farm has a substratum of hard pan. In short, the soil does not materially differ from that found in other parts of the state, always excepting such as is peculiar to particular localities, as the sand of Cape Cod, etc. Seventy to eighty head of live stock are kept, including representatives of Ayrshires, Guernseys, Holstein-Friesians, Jerseys, Shorthorns, Percherons, South-down sheep, and small Yorkshire swine.

While all the departments are fairly well equipped, the agricultural and horticultural, as would naturally be expected, are best supplied, and no pains are spared to practically drive home the teachings of the recitation-room. As the agricultural department has its barns and different breeds of cattle, its labor-saving implements and silos, so the horticultural has its green-houses and nurseries, its herbaria and models. Orchards of fifteen to twenty acres, containing all the standard varieties of small and large fruits, lie in immediate proximity, and for further practical study there is a vineyard containing thirty to forty varieties of fully tested grapes; a nursery of 30,000 to 40,000 trees, shrubs, and vines in various stages of growth; a market garden; and a grove covering several acres, affording ample opportunity for observations in practical forestry. Methods of planting, training, and pruning, budding, layering and grafting, gathering and packing fruits are taught by field exercises, the students doing a large part of the work. The botanical department, naturally joined with the horticultural, is in like manner

well supplied. In the museum is the Knowlton herbarium, collected by W. W. Denslow of New York, consisting of over 15,000 species of plants from all parts of the world; a collection of models of nearly all the leading varieties of apples and pears; hundreds of sections of wood, cut so as to show their individual structure; specimens of abnormal and peculiar forms of stems, fruits, and vegetables; together with many specimens and models prepared for illustrating the growth and structure of plants. Sections of trees joined together like the Siamese twins stand side by side, with the "giant squash" in its iron harness, while along the walls are suspended gigantic specimens of marine algæ. For use in the lecture-rooms are diagrams and charts containing over 3,000 figures, illustrating structural and systematic botany; and immediately adjacent is the laboratory fitted up with tables and compound microscopes, where the students engage in practical study of the growth and structure of the common plants cultivated in the greenhouse and the garden or on the farm. Valuable adjuncts to the recitation-room are the conservatories containing a large collection of tropical productions, together with all the leading plants used for house culture, cut flowers, and outdoor ornamentation. The same practical work is engaged in here, and the student is expected to make himself familiar with the different methods of propagating, hybridizing, and cultivating useful and ornamental plants. All kinds of garden and farm-garden crops are grown in this department, special attention being given to the treatment of market-garden crops, the selection of varieties, and the growth of seed.

Located on the college grounds are two experiment

stations, the one established and maintained by the state, the other by the United States government, entitled the Hatch Experiment Station of the Massachusetts Agricultural College.¹ The former is under a board of control made up of eleven members, four of whom are members *ex officio*, and the rest elected respectively by the Board of Agriculture, the Massachusetts State Horticultural Society, the Massachusetts Society for Promoting Agriculture, the trustees of the Agricultural College, and the State Grange, to represent their organizations. The latter forms a department of the college, controlled by its trustees and subject to their direction. Each is distinct from the other in its organization and work. The Hatch Experiment Station devotes itself to the investigation of meteorological phenomena as affecting plant growth, economic entomology, and the practical questions of every kind arising in horticulture and agriculture, while the state station turns its attention to questions of analysis, food rations, diseases of plants, and the like. With its accustomed liberality the state has erected and equipped, at an expense of about \$30,000, a fine laboratory, and a building with a glass house attached, to be used exclusively for the investigation of such diseases as the smut, the mildew, and the scab. This station has been in existence about eight years, and has recently issued its seventh annual report, filled with information of value to the farmer.

The Hatch Experiment Station is of more recent origin, being created by an act of Congress, passed February 25, 1887, appropriating \$15,000 annually to each state and

¹ The two Experiment Stations were united in 1895, after this paper was printed.

territory for the purpose of establishing and maintaining an experiment department in connection with the colleges of agriculture and the mechanic arts, to be known and designated as an "agricultural experiment station."

Under the provisions of this act the station at Amherst was organized, March 2, 1888, with four departments, — the agricultural, horticultural, entomological, and meteorological. By an arrangement with the state station all questions of a chemical nature are referred to it for investigation, thereby saving the expense of erecting and equipping another laboratory. Each department has a building of its own allotted exclusively to its own use. In the meteorological department a full set of self-recording instruments has been placed, where daily and hourly observations of all meteorological phenomena are taken and kept. The horticultural department has its green-houses, in which tests of fertilizers under glass are made, and where experimentation is continued throughout the year. The agricultural department has its barn fitted up in the most approved way for conducting tests in feeding, or investigating questions pertaining to the dairy. The entomological department has its insectary, where plants are grown and the life-histories of their insect enemies studied, while at the same time trial is being made of the best methods of applying different insecticides. The general policy of the station has been to furnish information on such subjects as were attracting the attention of the public, and to investigate questions of practical importance. It issues regular quarterly bulletins, and special ones, as occasion seems to demand; thus, when the gypsy moth appeared in the eastern part of the state a special illustrated bulletin,

describing the insect, its destructive habits, and the best remedies for combatting it, was prepared and sent to every tax-payer in the infested district and the adjacent towns. All these bulletins are sent free to each newspaper in the state, and to such residents engaged in farming as may request the same. The College for many years prior to the establishment of these stations had been carrying on experiments in a limited way, and the investigations of Goessmann, Stockbridge, Maynard, and Clark have been of immense value to the farmers of the state, and are recognized throughout the country.

We are told that "agriculture is not a patchwork of all the natural sciences, but is itself a vast subject upon which the various natural sciences shed their rays of light," and that the teacher of agriculture can do little more than indicate the points of contact between his own great subject and the sciences which surround it, leaving the explanations to those into whose domains they properly fall. With this broad definition of agriculture, — itself a science, complete in itself, yet touching all sciences and all branches of knowledge, — and taking as our guide the law that the teacher of agriculture can but indicate these points of contact and leave to others their explanation, we have endeavored to rear our superstructure of agricultural education: agriculture, our foundation; botany, chemistry, veterinary, and mathematics, our four corner-stones; while the walls are built high with horticulture, market-gardening, and forestry on the one side, physiology, etymology, and the comparative anatomy of the domestic animals on the second, mechanics, physics, and meteorology on the third, and a study of the English

language, political economy, and constitutional history on the fourth. These separate lines of study, each distinct in itself, yet each aiding in the interpretation or solution of the difficult problems met with, require a four-year course. They proceed hand in hand, and the completion of a study in one department is coincident with that in another. Mutual help is the watchword; each for all and all for each, in the laying broad and deep the foundation, and building up the solid structure. Thus, when the relations of the weather — of heat, air, moisture — to farming are considered, on the botanical side are being studied the structure of the plant, its organs, the relations of its root-system to soil and moisture; on the chemical, the elements important in an agricultural point of view and their properties; and on the mathematical, such algebra and geometry as will lead to practical work in drainage and surveying. So, too, when soils and tillage are being considered, are studied in like manner those plants beneficial or injurious to man, general geology, and the insects hurtful or otherwise to the crops. In short, the effort is made to have each course supplement and harmonize with the other, and the different studies so fit into each other as to make one rounded whole. But let it be understood that while the greatest effort and the largest expense have been bestowed upon the agricultural department, the authorities of the College entirely disclaim any attempt to narrow its graduates down to a choice of that profession alone. The opportunity for acquiring a valuable education, which shall fit one for the practical duties of life, is open to all, and all are welcomed, whatever the profession they may ultimately pursue. Believing that the

training of her young men in all that pertains to the use of arms, in the duties of the officer in handling and instructing troops, and in the construction of fortifications, would be of immense value to the commonwealth, the state has made ample provision for this department. A fine drill hall and armory have been erected, and arms and equipments issued. The United States details one of its officers for duty at the College, who is reckoned as one of the faculty, and who is responsible for the efficiency and good order of the department.

It will have been noticed that in the course of instruction no mention is made of the mechanic arts. At the time of the legislative acceptance of the national grant the Institute of Technology in Boston was already established, and it was deemed wiser to extend aid to it than to start a new school. Accordingly, one third of the income derived from the maintenance fund of the United States has ever since been annually paid over to it from the treasury of the commonwealth. This action of the legislature relieves the College from the necessity of giving instruction in that department, and has resulted in making the College more purely agricultural than any other in the country. Realizing the necessity of providing a higher education within the reach of those in moderate or straitened circumstances, the state has thrown wide the doors of its College and furnished every facility for acquiring such education at a minimum cost. Its tuition has been made practically free, and by the establishment of a labor fund, out of which a portion of the expenses can be paid in honest work, it has brought within the reach of a class of deserving young men forming the best possible material for

manhood and citizenship an education obtainable in no other way.

The College has had many earnest friends, but it has also encountered much opposition. The importance of a technical education has until recently been hardly appreciated by the farmers of the state. The rapidity with which the native population has emigrated to the western states, leaving their farms in the hands of an alien population, has been a factor of great importance in this connection. In 1870 a determined attempt was made to stop all further grants of money from the state; and several years later it was proposed to make the Agricultural College a department of Amherst College. The only result of these attempts, however, has been to establish it on a firmer basis than ever, and give to it renewed life and vigor.

RELATION OF THE STATE BOARD OF AGRICULTURE TO THE MASSACHU- SETTS AGRICULTURAL COLLEGE¹

MANY centuries ago the Apostle Peter, writing to his followers, said: "I stir up your pure minds by way of remembrance"; and centuries before the Apostle Peter lived it had been written: "Remember the days of old; ask thy father and he will show thee; thy elders and they will tell thee." It is fitting, therefore, that at the close of this first half-century of its existence the Board of Agriculture should hold its day of remembrance, and, calling upon its father to show them and its elders to tell them, should gather up the memories of the past and transmit them to their children to hold and guard forever. My mission, then, to-day is to stir up your pure minds by recalling to your remembrance the relation of this Board to agricultural education, and more particularly to its college of agriculture. Thirty-nine years, counting from the charter of this College, is the measure of its span, and each year has brought with it some expression of the Board's thoughtful care. Even before its establishment as a Board we find the trustees of the Norfolk Agricultural Society voting that its "president and secretaries be a committee to mature and adopt a plan for a convention of delegates from the various agricultural societies of the Commonwealth, to be holden at some convenient time and place, the object of which shall be to concert

¹ Address delivered at the fiftieth anniversary meeting of the Massachusetts State Board of Agriculture, at Boston, July 22, 1902.

measures for their mutual advantage, and for the promotion of the cause of agricultural education." At the morning session of that convention, held at the State House, March 20, 1851, the president, Marshall P. Wilder, announcing the subjects for discussion, spoke as follows: "It is also to be hoped that the cause of agricultural education, now about to receive the consideration of the Legislature, will not be overlooked in the deliberations of this body; and, if it be the opinion of this convention that agriculture may be promoted by the application of science, that such a sentiment may be expressed in terms so explicit as not to be misunderstood, and that the aid of government may be solicited for this purpose." At the afternoon session Mr. Sewall of Medfield, from the business committee, presented a preamble and resolutions, the fourth, fifth, and eighth of which bear directly upon the subject now under consideration: —

Resolved (4), That agricultural schools having been found, by the experience of other nations, efficient means in promoting the cause of agricultural education, which is so essential to the prosperity of farmers and to the welfare of communities, it becomes at once the duty and policy of the Commonwealth to establish and maintain such institutions for the benefit of all its inhabitants.

Resolved (5), That the several plans for an agricultural school, recently reported by the Board of Commissioners appointed for that purpose, are worthy the profound consideration of the people of Massachusetts and their representatives in the General Court, as indicating the feasibility and practicability of an establishment worthy that exalted character which the State has secured by the en-

dowment of kindred institutions, designed, like these, for the diffusion of useful knowledge among the people.

Resolved (8), That the convention respectfully suggests to the Legislature the propriety and expediency of reserving the entire proceeds of the sales of the public lands of the Commonwealth — from and after the period when the common-school fund shall have reached the maximum fixed by the act of 1834 — for purposes of education and charity, with a view to extending that aid and encouragement to a system of agricultural education, which the importance of the subject so imperiously demands.

The discussion over the different resolutions was, as the faithful chronicler puts it, continued, protracted, and at times vigorous. It was carried over into the evening session, and among those taking part we find the names of Marshall P. Wilder, Governor Boutwell, President Hitchcock of Amherst College, Professor Fowler of the same institution, Judge Mack of Salem, and William Buckminster, editor of the "Massachusetts Ploughman."

John Brooks of Princeton appears to have been the only opponent. He said: "This resolution seems to squint toward a college. If it has that tendency I shall be opposed to it, for I do not believe that the farmers are prepared to spend money in instituting a college. . . . As for lecturing to the people, I doubt whether that is advantageous, for the very best reason to my mind in the world, — that the lecturer will not know what to say; that he has no data on which to make out any speech, because science, as I understand it, is based upon facts. What facts has this commissioner that are applicable to agriculture in this State? I say, sir,

generally speaking, no fact. And why? Because the science of agriculture has not yet grown up in this country."

Richard Bagg, Jr., of Springfield, closed some breezy remarks by exclaiming: "Let us remember that if the State provide the means and appliances for a scientific course of agricultural study, the young man must 'wake up from his drowsy nap,' and qualify himself 'to go up higher.'"

The fourth and fifth resolutions were adopted, but we fail to learn the fate of the eighth, having reference to reserving the entire proceeds of the sale of public lands for purposes of education and charity.

At the first meeting of the Massachusetts Board of Agriculture, September 3, 1851, Marshall P. Wilder, William C. Fowler, John W. Proctor, J. H. W. Page, and S. Reed were chosen a committee to report on the subject of agricultural education and the best measures to be adopted for the encouragement of such education. The report of this committee was presented at the second meeting of the Board on January 14, 1852. It was discussed at this meeting, and also at the third meeting of the Board, on February 3, 1852, when it was adopted. This report, signed by Marshall P. Wilder as chairman, resolves: "That Massachusetts, by an enlightened policy and wise legislation, has rendered her system of education worthy of her exalted reputation, and that this Board most earnestly desire her to complete that system by providing kindred institutions for the scientific education of the farmer, upon whom is levied so large a share of the taxes for the support of governmental and philanthropic objects; that it is the duty, as well as the interest of the State, to aid in furnishing the means for such an education; and that a thorough

systematic course of education is as necessary to prepare the cultivator of the soil for preëminence in his calling, as to secure excellence in any of the schools of science or art." These are no uncertain words, and fittingly echo the fervent hope of Mr. Wilder in his opening remarks, "that, if it be the opinion of this convention that agriculture may be promoted by the application of science, such a sentiment may be expressed in terms so explicit as not to be misunderstood."

There seems to have been at this time a general awakening to the necessities of an agricultural education. Henry L. Dawes, in an address on agricultural education before the Housatonic Agricultural Society in 1853, after enumerating the obstacles to be encountered by the farmer in the discharge of the grand, crowning duty of the day, — the regeneration of the soil of Massachusetts, — said: "And the means not now within his reach, that shall enable him to triumph over them in this great attainment, are the necessities of the farmers of this Commonwealth. The means lie in an agricultural education. And for their accomplishment let Massachusetts establish an agricultural school, where will be taught the principles of the science and their application to the art of agriculture; and let the doors of knowledge be opened wide to all the sons of her soil, — not for the study of the speculative and mysterious, but of the practical and useful."

The Board of Agriculture led the way in this popular movement; and we find that at its third meeting, held September 7, 1852, a committee was appointed to consider the expediency of preparing a manual on agriculture for the use of common schools.

Again, at a meeting held three years later, January 16, 1856, a committee previously appointed to consider and report to the Board what further measures, if any, were needed to subserve the cause of agriculture in this Commonwealth, made the following report, which was accepted: —

Having given the subject their careful consideration, the committee are of the opinion that nothing would be better calculated to advance the cause of agriculture and foster and direct the growing interest therein throughout the community at large, than the immediate establishment of an experimental farm, and, as soon as the funds shall permit, of an agricultural school in connection therewith, where both the science and the practice of farming may be taught in all their departments.

Your committee do not propose to set forth in detail the many reasons which have led them to this conclusion, but they will be pardoned in suggesting one or two of the most important: —

First. There is not at the present time, to the knowledge of your committee, any society or board existing in the Commonwealth authorized by act of the Legislature to hold funds to be applied exclusively to the advancement of scientific and practical agriculture or the diffusion of knowledge connected with rural economy.

Secondly. In the opinion of your committee, the time has arrived when the wants of the community demand something of this kind; a time when the learned professions seem more than full; when the attention of our citizens, and in particular of our young men, is being more than

ever directed to the cultivation of the soil; and when many both wealthy and liberal men in the Commonwealth are holding out the inducement of an ample supply of funds in furtherance of such an undertaking.

Influenced by these considerations, among many others, your committee respectfully recommend that a committee be chosen by this Board to apply to the present Legislature for an act authorizing the formation of a Board of Trustees, capable of holding funds to be applied in establishing an experimental farm and agricultural school connected with it, designed to furnish instruction in every branch of rural economy, theoretical and practical.

B. V. FRENCH.

SETH SPRAGUE.

JOHN BROOKS.

Acting on the recommendation in the above report, the Board appointed Messrs. French, Newell, Sprague, Wilder, and Secretary Flint a committee; and, as a result of this action, the Legislature incorporated the Massachusetts School of Agriculture, but no institution was established.

At a meeting of the Board of Agriculture, October 15, 1856, Messrs. John C. Bartlett, Benjamin V. French and Secretary Flint were appointed a committee to take into consideration the propriety of having a text-book on agriculture, prepared under the sanction of the Board.

At the annual meeting, January 5, 1860, Mr. Richard S. Fay offered the following resolution, which was adopted:—

Resolved, as the opinion of this Board, that a system of agricultural education should be adopted and form a part of the educational system of the State.

Following the adoption of this resolution, the Board chose by ballot Messrs. Simon Brown, Richard S. Fay and Marshall P. Wilder a committee to prepare a plan for carrying it into effect, and to report the same to the Board for further action.

At a later meeting, held February 2, 1860, Dr. George B. Loring offered the following resolutions, which were adopted: —

Resolved, That the committee on agricultural education be and hereby are authorized to prepare an elementary manual of agriculture for the use of our common schools, to be submitted to this Board for approval.

Resolved, That the said committee be requested to cause to be introduced the aforesaid manual, when approved by this Board, into the common schools of Massachusetts, in the manner provided for the introduction of school books by the laws of the Commonwealth; and that said committee be authorized to apply to the Legislature for the passage of an act for the accomplishment of this object.

At a meeting held January 10, 1861, on motion of Mr. Fay, it was

Voted, That the committee on the manual be authorized to accept a proposition from Mr. Emerson and Mr. Flint, securing to them the copyright of the manual as a compensation for their services in preparing the book, upon such terms as to price of the work to be furnished to public schools, farmers' clubs and agricultural associations in Massachusetts as may be agreed upon by said committee.

At a meeting of the Board, January 25, 1861, Colonel Wilder presented the following resolution, which was unanimously adopted: —

Resolved, That this Board approve of the Manual of Agriculture, submitted by its authors, Messrs. Geo. B. Emerson and Charles L. Flint, and recommend its publication by those gentlemen as a work well adapted for use in the schools of Massachusetts.

And at a meeting of the Board, January 17, 1862, on motion of Mr. James S. Grinnell, it was

Resolved, That a committee of three, consisting of Messrs. Joseph White, Charles C. Sewall, and Henry H. Peters, be requested to represent the merits of the Manual of Agriculture to the committee of the Legislature on education, on the order "To consider the expediency of including the elements of agriculture among the branches to be taught in all the public schools in which the school committee deem it expedient."

As a result of this action, the Legislature of 1862, by Chapter 7, provided that "agriculture shall be taught, by lectures or otherwise, in all the public schools in which the school committee deem it expedient."

But it must not be imagined for a moment that all was plain sailing. There were to be found, even as now, those who sneered at book knowledge, or doubted the expediency of any such measure. Hon. Amasa Walker did not hesitate to say, in an address before the Worcester South Agricultural Society: "Farmers are the great mass of the people,

and how can they, from their very numbers, be educated at college? And then the expense could never be encountered by the farming interest, nor could the sons be spared from the farms, nor would it be desirable to so break up their habits as farmers as to put them under one, two or more years' tuition at college. Besides, colleges are made for professional men, not for the people, and their mission never was and never will be to educate the million." Mr. Jackson said that if a boy learned to read, write, cipher, and spell, he would make an excellent farmer. What need of science? The good old way of his fathers was sufficient. It was only the old story told by George Eliot in the "Mill on the Floss," and it is Farmer John who speaks: "What I want," said he, "is to give Tom a good eddication, — an eddication as 'ud be bread for him. That was what I was thinking of when I gave notice for him to leave the academy at Lady Day. I mean to put him to a downright good school at midsummer. The two years at th' academy 'ud ha' done well enough, if I'd meant to ha' made a farmer of him, for he's had a fine sight more schoolin' nor ever I got. All the learnin' my father ever paid for was a bit o' birch at one end and the alphabet at the other."

And even our good Governor, who has charmed us this morning with his reminiscences of the past, is reported as saying that all this matter of agricultural education was mere nonsense, — that he had always said that the agricultural college would be a failure; that it could not succeed in the nature of things, for as soon as you educated a boy, he would leave the farm. Consequently, the conclusion he came to was, that all the education a farmer got he would have to get at the tail of a plough.

At the very first intimation of a movement in the national House of Representatives, looking towards the establishment of colleges for the benefit of agriculture and the mechanic arts, the Board of Agriculture promptly placed itself on record. At a meeting held April 7, 1858, it was

Resolved, That this Board do most heartily approve of the objects of a bill presented in the House of Representatives in Congress, December 14, 1857, by Hon. Justin S. Morrill of Vermont, requesting Congress to donate public lands to each State and Territory which may provide colleges for the benefit of agriculture and the mechanic arts; and that our Senators and Representatives in Congress be requested to render their best aid in securing the passage of said bill into a law; and that our secretary be requested to serve each of our Senators and Representatives with a copy of the above.

At a meeting of the Board, January 8, 1861, Mr. Levi Stockbridge of Hadley offered the following resolution:—

Resolved, That, in the opinion of this Board, the time has arrived for the inauguration of measures tending to the establishment of an agricultural school of high grade under the patronage of the Commonwealth.

At a meeting held the 25th of the same month, on motion of Mr. James S. Grinnell of Greenfield, it was

Resolved, That this Board, believing that the establishment of an agricultural school would advance the interests

of agriculture in this Commonwealth, is disposed to give its influence to any well-directed plan for such a school.

Following this resolution, Messrs. Marshall P. Wilder, Freeman Walker, William S. Clark, Levi Stockbridge, and Charles C. Sewall were chosen a committee "to coöperate at their discretion with any men or body of men who may have any plan for an agricultural school, and to present and report their proceedings at the next meeting of the Board."

At a meeting held February 27, 1863, Colonel Wilder made a statement of the doings of the above committee. After some discussion, Dr. George B. Loring presented the following resolutions, which were unanimously adopted: —

Resolved, That, in the opinion of the State Board of Agriculture, the grant of land made by Congress to the several States for the establishment of colleges for instruction in agriculture and the mechanic arts is designed expressly for the general diffusion of useful knowledge in these two branches among the people.

Resolved, That the Legislature is hereby respectfully requested to make such disposition of the grant as will enable the Board of Agriculture, as immediately representing the farming interests of the Commonwealth, to enlarge its sphere of usefulness by exercising a supervision over the employment of the funds arising from the grant, for the purpose of securing the confidence of the agricultural community, and of conducting such a scheme as will operate for the benefit of those engaged in this business.

Resolved, That, in the opinion of this Board, the interests of the State and intentions of Congress require that the

grant should be principally devoted to the establishment of an educational institution for the practical and scientific study of agriculture and for the instruction of youths who intend to follow industrial pursuits, and that the institution should not be immediately connected with any institution established for other purposes.

Resolved, That a committee of five be appointed to present these resolutions to the committee of the Legislature having the subject under consideration, and to express the views of this Board upon the proper disposition of the Congresssional grant.

The committee provided for in the last resolution was constituted by the appointment of Messrs. Marshall P. Wilder, Paoli Lathrop, George B. Loring, S. B. Phinney, John Brooks, Henry Colt, and Charles G. Davis.

At a meeting held January 30, 1865, Dr. Loring offered the following resolutions, which were unanimously adopted:

Resolved, That the agricultural College should maintain an intimate relation to the agricultural societies and the farmers of the Commonwealth, as a means of disseminating practical information and affording the best means of educating young men for the business of farming.

Resolved, That, for this purpose, every effort should be made to connect the State Board of Agriculture with the government of the college, for the express object of bringing the agricultural societies into close connection with that institution, and as the most useful method of combining all the efforts of the Commonwealth in one system of practical agricultural education.

From this time on we find the Board taking the most active interest in the establishment of the College, providing in every possible way for its welfare, and seeking to enter into a closer and more intimate union. We can do little more than briefly enumerate these continued expressions of its good-will.

We find it in 1866 the author of an act constituting the president of the College a member *ex officio* of the Board; and further providing that it should be constituted into a Board of Overseers over the College, but without powers to control the action of its trustees or to negative their powers and duties. In this same act the Board was authorized to locate its cabinet and library at the College, and to hold its stated meetings there.

We next find it in 1867 urging upon the agricultural societies to establish and maintain at least one scholarship at the College. As a result of this effort, we find in 1869 eighteen of these societies supporting a scholarship, while the Massachusetts held itself responsible for three and the Essex and the Plymouth each two. At this same time it advocated the proposal that each agricultural society should set aside one sixth of the monies granted to it by the State as a fund towards the support of a professor at the College, whose duty it should be to carry out such experiments as the Board might from time to time direct. A circular was sent out to each of the thirty agricultural societies, asking whether it would consent to such setting aside of one sixth of its stated income. This proposition, however, failed to go into effect; and a resolution was then adopted stating that it was desirable that the secretary of the Board should be located at the College and become a professor, performing

such professional duties as the trustees might direct, and receiving a competent salary from the Commonwealth. This resolution was reconsidered the next year, and the following resolution adopted: "That Charles L. Flint, the secretary of this Board, be authorized to deliver a course of lectures at the Agricultural College, or to discharge such duties connected with the instruction of the students at that institution, as the trustees may assign to him, provided that such services do not conflict with his duties as secretary aforesaid."

Under this resolve Mr. Flint lectured at the College for four successive years, his name being carried on the catalogue as lecturer on dairy-farming.

Again in 1875 we find the Board renewing its efforts to induce the several agricultural societies to maintain each a scholarship at the college, and to secure the attendance of one or more students from the district covered by their organizations.

In all matters of financial aid the Board, by direct effort and petition to the General Court, was a powerful support to the trustees. This was particularly manifest in the years 1868, 1869, 1876, 1877, 1882, and 1899.

When, in 1880, Governor Talbot and the Council advocated the union of Amherst College and the Massachusetts Agricultural College, it was the Board which, under the leadership of Benjamin P. Ware of Marblehead, drew up a series of resolutions embodying its adverse feeling; and again in 1881 it was the Board which directed its secretary to petition the Legislature to establish an experiment station at the College. In short, wherever we look we find the Board of Agriculture at the front, moulding public

opinion and leading the way. For what it has purposed and tried to do, for what it has done in the past, for what it will do in the future, permit me, in the name of the College I represent, to express my grateful appreciation. With the Board for its councillors and overseers, its future is secured.

ADDRESS BEFORE THE ASSOCIATION OF AMERICAN AGRICULTURAL COL- LEGES AND EXPERIMENT STATIONS¹

GENTLEMEN OF THE ASSOCIATION: — The great apostle of German materialism was wont to say in his lectures: “Miracles, gentlemen, are like pills, to be swallowed, not chewed.” He was dealing with the supernatural and what is contrary to natural law. But in the vast realm of Nature and the investigation of her phenomena, the miracles daily performed before our eyes can not be carelessly disposed of in a moment, swallowed without consideration. The unrolling of the leaf, the budding of the flower, the maturing of the perfect fruit, the wonderful adaptation of parts to specific ends, the differentiation of various organs, as the filaments of certain plants for tactile organs, the lobes for capturing insects, and the glands of secretion and absorption — all these require the most careful and patient observation. All natural phenomena have their physical and natural causes, and to find out these underlying causes is often a morsel of the toughest kind, to be turned and returned, again and again, before the final act of deglutition takes place and we are prepared to hazard an opinion. And these adaptations of nature are as countless as the sands upon the shore, each one in itself

¹ Address delivered at Washington, D.C., August 12, 1891, on taking the chair as President of the Association.

a wonderful physical miracle, only to be interpreted by the patient worker.

We are tempted to exclaim in the words of the magic song, where Mephistopheles draws wine out of the table in Auerbach's cellar: —

Wine is grapes and grapes are wood,
The wooden board yields wine as good.
It is but a deeper glance
Into Nature's countenance.
All is plain to him who saith,
"Lift the veil and look beneath,
And behold," the wise man saith,
"Miracles if you have faith."

The rapt seer, looking over the broad field, exclaimed: "Animate and inanimate creation are mountainous and glittering with them. Down into the regions of the infinitely small, whither only the most searching microscopes carry the sight; up into the regions of the infinitely large, whither only mightiest telescopes lift our struggling vision; among the mechanisms of the atomic hosts that people a single leaf and among the mechanisms of those swarming celestial empires whose starry banners sweep our mighty skies, it is everywhere the same" — exquisite adaptations crowding exquisite adaptations; means so exquisitely adapted to the end that every part stands in the most perfect balance and adjustment to the other. What more perfect illustration of this correlation of parts can be presented than in the family of the *Vandææ*, where the related positions and shapes of the parts — the friction, viscosity, elastic and hygrometric movements, all nicely related to one another — come into play. Yet all these appliances are subordinated to the aid of insects; for when the retreating

insect, having satisfied its quest, gradually worms its way out, the labellum springs back into place, the lip of the anther is lifted up, and the viscid mass from the rostellum, forced into the anther, glues the pollen mass to the insect and thus insures its transportation to some other flower.

Darwins and Mullers, it is true, are not born every day, but every man has within him the same elements of success if he will only use them aright, bringing to bear upon each problem the same patient, intelligent observation, adding link to link, till at last the lengthening chain stands perfect and complete.

And yet there will always remain some problems that will baffle the closest scrutiny. "The deeper science searches into the mysteries of nature, the more clearly it evolves the simplicity of the means used and the infinite diversity of results. Thus from under the edge of the veil which we are enabled to lift, a glimpse of the harmonious plan of the universe is revealed to us. But as for the primary causes, they remain beyond the ken of mortal mind; they lie within another domain; which man's intellect will ever strive to enter and search, but in vain."

The German scholar who, after a life of patient study of a single word, the relative pronoun, regretted on his death-bed that his efforts had been scattered and that he had not confined himself to a single letter of the Greek alphabet, is but a type of the labor required in establishing a single fact. Diffusion is weakness, concentration, strength; and the man who with divided energies studies a mass of facts is outstripped in the race by him who confines himself to one. It takes ten years at least, said President Clark, to establish one agricultural fact; but it is on the aggregation

of facts that stable law depends, and although we can not always see the immediate practical value of the addition of a new fact to the fund of knowledge, still no one can ever tell how much vital importance is hidden in it. The boy dallying with the steam issuing from his mother's teapot established the fact of its condensation, and forthwith became possible its application to all the tremendous engineering of modern science. Nor should a fact be despised because of its apparent triviality. The great father and founder of fruitful investigation, Lord Bacon, says: "The eye of the understanding is like the eye of the sense: for as you may see great objects through small crannies or levels, so you may see great axioms of nature through small and contemptible instances."

Not a single physical science can be named that has not been built up by the labors of men who were seeking for truth while those very labors were considered puerile and ridiculous by mere utilitarians. Every scientific truth, it has been aptly said, has to pass through three initial stages before it can be firmly established: first, that of denial and ridicule by the world; second, that of acceptance; and third, that of calm assumption that it has always been so. We are told that Pythagoras, when he discovered that the square of the hypotenuse was equal to the sum of the squares of the other two sides, offered up a hecatomb, in grateful recognition of what had been vouchsafed him, since which time whenever a scientific truth has been discovered the oxen have always bellowed. The best scientific results of the present day which have not yet borne fruit — the questions that engage the attention of our scientists — are recounted with the same sneers and ridicule by those who

claim to be practically wise as were observations in geology and experiments in electricity a century ago. "Every great advance in practical science in the last half-century has been simply the combining or utilizing of materials and results wrought out as isolated products of facts, after long years of careful investigation, by the patient truth-searchers in all portions of the world." The studies of Franklin, Volta, Arago, Henry, and Faraday in accumulating facts, discovering laws, and inventing instruments, made the electric telegraph a possibility in our day.

Those men prosper best in this world of universal inquiry who sit silent, watch longest, and accept most quickly each suggestion of change. The thrifty trees hug the earth and rocks with a thousand rootlets, feed on air with ten thousand leaves, and feel everywhere through and through them the throbbing force of life; but who can tell the countless generations through which they have stood, silently drinking in the sunshine of heaven and gathering and maturing their strength.

All theories are open to ceaseless inquiry and correction and we can expect to progress only by the patience, the breadth and the sagacity of our work in uncovering laws and methods of life in themselves very secret and obscure.

The fundamental working conceptions of science change with the changing knowledge of the facts they interpret, but the foundation remains the same, and he interprets best who penetrates most deeply to its heart and questions most closely its workings. The good agriculturist stands in a kind of awe of living things. He is diffident in the suggestions he makes to them, and if the hint is not taken he withdraws it at once. If any predisposition appears, he humors it

immediately and is ready to stand a quiet observer in the presence of the putting forth of vital powers.

Variety is the initiatory step of all progress, and we may thankfully accept a score of unimportant foundlings, if after repeated failures we succeed in producing one serviceable one of lasting benefit to the human kind.

But the world is too impatient for results — like the Athenians of old, madly rushing about, ever seeking for something new. Progress is the cry of the age, progressive thought the pet pride of to-day. The charm of antiquity is broken. The historic tales of our childhood have faded into myth before the cold scrutiny of modern learning. The idols of the past are overthrown and trodden underfoot by the iconoclasts of the present. No doctrine is too sacred, no dogma too hoary for the levelers of to-day. Every year, nay every month, witnesses the birth of some new theory, some grand discovery in the laws of Nature, who in her old age seems as prolific of law as a continental congress. New creeds, new sciences, new methods are springing up like the fabled race of heroes from the uncanny sowing of the dragon's teeth, and all under the glorious reign of progressive thought. Well will it be for us if in this universal demand for something new, something strange, something out of the beaten track, we can heed the lesson of the hour and patiently watch and wait — watch though the world deride our waiting; wait till the harvest crowns our watching.

From the "seely wench," who, according to Platt, taught the art of setting corn by accidentally dropping some wheat seeds in holes into which she ought to have dibbled carrots and radishes; from the sowing of potatoes broadcast

and the drawing of ploughs and harrows by the tails of the unfortunate horses in the eighteenth century, to the drilling and the sulky or steam-traction ploughs of the present age, is indeed a great advance. The patient workers in this our chosen field have not been many, at least till we come down to our own time; and too often, alas, to quote the spirited words of another, "like the ancient alchemists have starved in the midst of their golden dreams. Tusser, teaching thrift, never throve. Gabriel Platter, the corn-seller, who boasted that he could raise thirty bushels of wheat to the acre, died in the streets for want of bread. Jethro Tull, instead of gaining an estate, lost two by his horse-hoeing husbandry. Arthur Young failed twice in farm management before he began his invaluable tours of observation"; and Bakewell, irrigating his meadows and raising four crops in a single season, was compelled to give up his farm, and died in comparative poverty.

But each one has lifted the veil a little higher and left the way a little clearer for those who followed him. Tull, experimenting in drilling and horse-hoeing husbandry, all but divined the mysteries of chemistry, which then, as applied to agriculture, were undiscovered. Thaer, applying the natural sciences to agriculture, established a system of farm accounts, placing values on the various farm materials, and introduced the great principle of rotation of crops. Bakewell, discovering the principle of selection in breeding, raised to the highest pitch of perfection his flock of Leicesters. Stock husbandry rose at a single bound, and henceforth the "promiscuous union of nobody's son with everybody's daughter" was at an end. Davy, by his chemical analyses and explanations of agricultural processes, laid

broad and deep the foundations of agricultural chemistry. Liebig, teaching the applications of chemistry to agriculture and the nutrition and growth of plants and animals, inaugurated the era of progress of scientific agriculture. Boussingault, whose careful analyses and experiments in connection with his investigations into the sources of the elements of nutrition for plants and the value of food-rations for animals, led the "Agricultural Gazette" to say of his "Economie Rurale" that it was the most important and valuable book for farmers that the chemists of the present century have produced; Stöckhardt, popularizing agricultural chemistry by his lectures and his writings; Mechi, laying down the rational principles of farm-management; Henneberg, unfolding the mysteries of the physiology and economy of feeding farm animals; Ville, teaching the principles of complete manures; Grandeau, teaching the analytic methods of agricultural chemistry; Deherain, for years conducting exhaustive field experiments; Mærcker and Wagner studying the application of potash, nitrogen, and phosphoric acid to the growing plant; the two Kühns, working in the respective fields of the physiology of cattle-feeding and the chemistry of the respiration of animals; Wolff, in food-rations, Pettenkofer in respiration; and the lengthening list closes with the name of one whose carefully conducted experiments for half a century have made the estate of Rothamsted a shrine for all true workers in the science of agriculture — a Mecca to which the devout repair as do the followers of the prophet to their holy city.

Fifty-seven years ago Sir John Bennet Lawes, entering into possession of his estate, commenced a few experiments on the effects of different manures upon potted plants and

afterwards upon plants in the field. Led by the striking results obtained to carry on the same line of investigation on a broader scale, nine years later he associated with himself Dr. Gilbert, turned a barn into a laboratory, and commenced that series of patient and exhaustive experiments which have won for him and his work a world-wide reputation. From the few experiments with potted plants of 1835 and 1836, and from a single associate working in a barn used for chemical purposes in 1843, his station has risen in staff and equipment to one of national importance, with its sixty or more broad acres permanently set aside for agricultural experiment; its trained staff of workers, chemists, botanists, veterinarians, computers, and recorders; its laboratory, presented by interested agriculturists in recognition of the importance of his work; its munificent endowment; its collection of over 40,000 bottles, containing the results of thousands of analyses, samples of the various animal and vegetable products, ashes, soils, etc., connected with the various experiments; and last, its manuscript library, a marvel in itself — thousands of pages, classified and indexed, containing a complete record of every ascertained fact; a life-history, if we may so term it, of every experiment undertaken; a mass of all conceivable data on a great variety of subjects, tabulated and arranged for ready reference.

Rothamsted has from the outset — and for nearly half a century — voluntarily placed itself at the disposition of the advocates and practitioners of advanced agriculture. Scientific and practical problems, as offered, have been accepted and faithfully and exhaustively worked out, regardless of expense either in time or money. Practical

agriculture in all its possible bearings is represented in the publications, and hence the variety of the style of its writings, suited to the education of an audience at Oxford or a farmers' club. All things have been laid under contribution and made to minister to it. The earth, the air, and the water have in turn given up their secrets. Like the All-seeing One, the hundred-eyed Argus of antiquity, or Briareus of the hundred hands, it has suffered nothing to escape its close scrutiny and inquiry. From the pure rain-drops of heaven to the drainage waters of the earth, and from the capture and imprisonment of the free nitrogen of the atmosphere to the composition, utilization, and value of town-sewerage, it questions them all; and whether they answer in the tongue of the chemist, the botanist, or the engineer, the answer has invariably been in the direct interests of practical progressive agriculture.

The value to agriculture of the work already accomplished is well-nigh incalculable. Far less can be estimated that of the future, for which, in the will of the generous founder, ample provision has been made. Of its immediate importance, English agriculturists speak in no uncertain terms. The author of the "Pioneers and Progress of English Farming," referring to the experiments of Sir John Bennet Lawes and Dr. Gilbert, says: "The triumph of chemistry is summed up in the system of successive cropping without impoverishment, which has been established by them. It is difficult to estimate the enormous influence which their experiments have already exercised upon farming, or to assign limits to the increased productiveness of the soil which England might have witnessed but for the disastrous period of 1873-89."

Gentlemen of the Association : in my feeble way I have endeavored to outline to you the great work accomplished at Rothamsted. I have likened that station to Argus of the hundred eyes, to Briareus of the hundred hands. Those mystic impersonations of power and sight were dependent each of them upon the individual eyes and hands, which went to make up their being. In like manner the strength of the station depends upon the individual character and make-up of its staff.

We have with us here to-night an eye and hand of Rothamsted — an eye which has not sought in vain the interpretation of Nature's problems; a hand which has most skillfully assisted the eye in these interpretations.

WHAT SHOULD BE TAUGHT IN OUR COLLEGES OF AGRICULTURE? ¹

IN an old book containing the wisdom of an age two thousand years older than the present, I find this quotation: "How can he get wisdom that holdeth the plow and that glorieth in the goad, that driveth oxen and is occupied in their labors and whose talk is of bullocks?"

Apparently the same need of instruction was as urgent then as now, and the tiller of the soil in the fertile plains of the eastern world felt that there was something more to be desired than simply following, day in, day out, the dreary routine his fathers had left him. That there were sources of information even then is evident from the fact that the wise Solomon could discourse of trees, from the cedar of Lebanon even to the hyssop springing out of the wall; and it is added that he spake also of beasts, of fowls, of creeping things, and of fishes. The same questions that stirred the heart of the agricultural seer so many centuries ago are pressing with renewed force now, and more light is sought on all the difficult problems that present themselves to the farmer of to-day. It is the mission of the agricultural colleges to furnish this light and lead the way.

I am asked to present this afternoon a brief paper on what should be taught in our agricultural colleges. Per-

¹ An Address delivered at Washington, D. C., November 10, 1896. From *Proceedings of the Tenth Annual Convention of the Association of American Agricultural Colleges and Experiment Stations*.

haps I can express myself in no way more clearly than by outlining to you the course at the Massachusetts Agricultural College. That has stood ever since its foundation, in 1867, for agriculture alone, instruction in the mechanic arts being supplied by the Institute of Technology, which has shared with it the proceeds of the grant of 1862 and the later one of 1890.

While it has been the purpose of the faculty to give the best possible instruction upon every subject taught, there has been no effort to expand the course beyond the proper limits of a simple professional school, or to compete in any manner with other existing institutions. On the other hand, the College has from the outset been intended to be something very different from a mere manual-labor or farm school for training apprentices in the various operations of husbandry. Since the first few years manual labor has been entirely discarded, except in so far as it has an educational value — not how to plough and hoe, but when and where to do it to the best advantage. The hours of student-life can be much more profitably employed than in mere manual labor, opportunities for which are everywhere presented, while the facilities for education are offered only at the college and for a limited period. More mind and less muscle is the watchword of to-day. In preparing the soil, in planting, in cultivating, in haying, in harvesting, in threshing, in the management of the dairy, in fact almost everywhere, intelligence is the principal thing, and mere brute force comparatively worthless. The old prejudice against thoughtful, studious, and progressive men as book-farmers and fancy farmers has at length been overcome by the mass of printed matter which is flooding with light

every household, and by the numberless improvements which have been demonstrated to be not merely expensive luxuries for the rich, but of priceless value to every tiller of the soil.

But to turn more directly to the curriculum itself. This naturally divides itself into seven departments: the English, the agricultural, the chemical, the botanical, the mathematical, the zoölogical, and that of languages and social science.

I. English has a place in the curriculum of the Massachusetts Agricultural College because of its practical value and its educational value.

By its practical value we mean its value in enabling the student to express his thought by oral and written language. Looking at the study from this point of view, we may name it the study of oral and written expression. The specific subjects and exercises set for securing this practical advantage from the study are these: rhetoric, during the freshman year; declamations, during freshman and sophomore years; essays, in the freshman, sophomore, and senior years; orations, in the junior year; logic and debates, in the senior year. The principal object in these exercises is to secure accuracy and facility in the use of the English language as an instrument by which thought is expressed.

In addition to these studies, American literature is studied in the sophomore year and English literature in the junior and senior years. While, as an incidental advantage, the student's style in writing and speaking may be improved and perfected by reading and studying the best works of the best authors, literature is studied chiefly for its educational value. As literature is one means by which

the thoughts and aspirations of men are expressed, one can learn the history and progress of the thought of the American and English people from the study of American and English literature. The student's mind being brought in contact with the great minds that have adorned the pages of English and American history, his powers are quickened and developed thereby, his mental horizon is enlarged, and thus a most important educational advantage is secured.

II. The agricultural course covers a field of such wide and varied extent that it is hard to compass it in a four-years' course. The graduates must know the origin and nature of soils and subsoils, and the proper treatment of each; the methods and advantages of the various kinds of tillage, and the modes of drainage and irrigation, with their cost and value. They must understand the worth and peculiar effect of every variety of mineral and organic fertilizers; the construction and use of all the implements and machines of improved husbandry; the best modes of planting, cultivating, and harvesting all sorts of crops, and the varieties of each which are most valuable for different localities and objects. They must be familiar with the characteristics of the different breeds of domestic animals and their various adaptations; with the proper modes of feeding for particular purposes, and of treatment in health and sickness, and with the principles of breeding. They must be acquainted with the keeping of farm accounts, the ordinary rules of business and the legal rights and obligations of landholders; with the renovation of worn-out lands and the improvement of those which are new and rough; with the most desirable location and construction of farm buildings, the

correct division of an estate into arable, pasture, meadow, and woodland, according to circumstances, and the building of roads, bridges, and fences. They must understand the use of rotation in crops; the management of the dairy; the cultivation of vegetables in the market-garden and under glass; the raising of small fruits and their transportation and sale; the planting and culture of vineyards, orchards, and forest trees; and the theory and practice of landscape-gardening, with the proper selection and treatment of ornamental plants. The strictly agricultural part of this course is carried on for eight terms, mostly by lecture, embracing the following topics: the history of agriculture, soils, drainage, irrigation, disposal of sewage, fertilizers, fields, crops, implements, breeds and breeding, dairy-farming, cattle-feeding, laboratory and experimental work. The horticultural work covers six terms under the following heads: horticulture, market-gardening, landscape-gardening, floriculture, sylviculture, care of greenhouses, and construction.

III. The course in chemistry extends over nine terms, the last three of which are almost entirely laboratory work, eight hours per week. Commencing with lectures and practice in elementary chemistry, there follow in succession dry and humid qualitative analysis, lectures and practice in organic chemistry, chemical physics, and quantitative analysis. In connection with this is a series of lectures on the application of chemistry to the industries of life.

IV. Botany covers seven terms, embracing structural, analytical, economic, with laboratory work, cryptogamic, and physiological. The course aims to treat of all the more important features connected with the study of plants which have a close bearing upon agriculture, without at the

same time deviating from a systematic and logical plan. Throughout the entire course the objective methods of teaching are followed, and the student is constantly furnished with an abundance of plant-material for practical study, together with an elaborate series of preserved specimens for illustration and comparison. In the freshman year the study of structural and systematic botany is pursued, with some observation on insect fertilization. This is followed in the first term of the sophomore year by the systematic study of grasses, trees, and shrubs, and this during the winter term by an investigation into the microscopic structure of the plant. The senior year is given up entirely to cryptogamic and physiological botany.

V. The mathematical course. In this day of scientific experiment, observation, and research on the farm, the advantage of a thorough knowledge of the more elementary branches of mathematics, general physics, and engineering must be more than ever apparent; and it is to meet the needs of the agricultural college student in these lines that the work in the mathematical department has been planned.

The mathematics of the freshmen, sophomore, and junior year is required; that of the senior year elective. The sequence of subjects is as follows: bookkeeping, algebra, geometry, and mechanical drawing in the freshman year; trigonometry, mechanical drawing, and plane-surveying — the latter embracing lectures and field-work in elementary engineering, the use of instruments, computation of areas, leveling, etc. — in the sophomore year; general physics, — including mechanics, electricity, sound, light, and heat, — and descriptive geometry or advanced mechanical drawing

in the junior year; and, finally, two electives in the senior year, — mathematics and engineering.

The mathematical option includes the following subjects: Fall Term, plane analytic geometry, embracing a study of the equations and properties of the point, line, and circle, and of the parabola, ellipse, and hyperbola; Winter Term, differential calculus; and Summer Term, integral calculus.

The senior engineering option is designed to give to the student the necessary engineering training to enable him to take up and apply, on the lines of landscape-engineering and the development of property, his knowledge of agriculture, forestry, botany, and horticulture. It embraces a course of lectures, recitations, and field-work on the following subjects: topography, railroad curves, earthwork, construction and maintenance of roads, waterworks and sewerage systems, etc.

The engineering elective is intended to equip the student to enter a comparatively new field — that of landscape engineering, which is coming more and more prominently before the public attention; for with the increasing consideration which is being paid to the public health and the development and beautifying of our towns and cities, come fresh needs and opportunities.

VI. The zoölogical course commences with one term of anatomy and physiology, followed by a term of laboratory work, eight hours per week, in which each student is required to make dissections, use the microscope, and make drawings of his work. This is followed by one term of zoölogy, three of veterinary science, and four of entomology, the last three being optional, consisting largely of microscopic work and drawing, eight hours per week.

VII. The seventh and last course embraces the modern languages (French and German), political economy, constitutional history, and a course of lectures on rural law, including the rights and obligations of landholders, and other subjects of practical importance to every citizen, whatsoever his profession.

I have now sketched more or less in detail the seven divisions of our agricultural course. It is for three years rigid and defined, with liberty to select and specialize in the fourth. The structure is reared somewhat after this fashion: Agriculture the foundation; botany, chemistry, zoölogy, and mathematics the four corner-stones; while the walls are solidly built up with English, horticulture, floriculture, and forestry on one side; English, physiology, entomology, comparative anatomy of the domestic animals, and veterinary, on another; English, mechanics, physics, and civil engineering on the third; and English, French, German, political economy, and constitutional history on the fourth. The study of English is made the basis of all study. It is interwoven with every course. It is, in fact, the very warp and woof of every branch pursued. These seven courses, each distinct in itself, yet each aiding in the interpretation or solution of the difficult problems met with, require a four years' course. They proceed hand in hand, and the completion of a study in one department is coincident with that in another. Mutual help is the watchword. Each for all, but all for each, in laying broad and deep the foundation and building up the solid structure. Thus, when the relations of the weather — of heat, air, moisture — to farming are considered, on the botanical side are being studied the structure of the plant, its organs, the relation of its root-

system to soil and moisture; on the chemical, the elements important in an agricultural point of view and their properties; and in the mathematical, such algebra and geometry as will lead on to practical work in surveying and drainage. So, too, when soils and tillage are under consideration, in like manner are studied plants beneficial or injurious to man, general geology, and those insects hurtful or otherwise to the crops. In short, the effort is made to have each course supplement and be in harmony with the others, and the different studies so fit into each other as to make one rounded whole.

REPORT OF THE EXECUTIVE COMMITTEE, TWELFTH CONVENTION,¹ 1898

To your executive committee were intrusted a number of very important measures vitally affecting the interests of the Association. All these have received careful consideration, and such action has been taken as the circumstances seemed to warrant.

Very early in the year a letter was received from the chairman of the committee on seed-testing, appointed at the 1896 convention, stating that he had been unable to be present when the committee made its report in 1897, and that he had sent a letter asking for the continuance of the committee for another year, in order that it might determine practically the values of the apparatus and methods proposed rather than leave it to the seed-dealers. The letter arrived too late for action, and he now asked the executive committee to grant such authority. The matter being an important one and requiring immediate action, your committee, under the fourth article of the section relating to officers, authorized by written vote the continuance of the said committee for another year.

The question of securing necessary legislation for the sale of uniforms, either made up or the cloth for the same, at government prices, to the cadets of the different colleges, was taken before the Military Committee of the House at

¹ Of the Association of Agricultural Colleges and Experiment Stations.

its short session. The chairman refused to consider it, on the ground that the appropriations had already been made up, that this would require an extra appropriation for the purchase of extra cloth, and that he was pledged not to ask for any extra appropriations. It was urged that this did not call for any extra expense, as the money from the sales would be covered back into the Treasury. But the chairman refused to recede from his position. Your committee recommend a continuance of effort on the same lines.

At the same time legislation was sought for making the land-grant colleges depositories of all government publications. A bill was drafted and introduced into the Committee on Printing. Objection on technical grounds having been made, it was withdrawn, and introduced a second time in a modified form. The approaching difficulty with Spain, however, soon absorbed the entire attention of Congress, and it failed to be reported. Your committee has since learned that there are not copies of the public documents sufficient to supply the colleges, and that a second bill, providing for this addition, would be necessary.

Of all the questions submitted for the consideration of your committee no one has caused so much anxiety as that involving the annuity passing under the name of the Morrill fund. The act (Senate, 372) providing free homes on the public lands for actual and bona fide settlers by reserving the public lands, twenty million acres, for that purpose, struck immediately at the source from which the Morrill annuity is derived, namely, the proceeds derived from the sale of public lands. The act provides "That all settlers under the homestead laws of the United States upon the public lands acquired prior to the passage of this act

by treaty or agreement from the various Indian tribes, or upon military reservations which have been opened to settlement, who have or who shall hereafter reside upon the tract, entered in good faith, for the period required by existing law, shall be entitled to a patent for the land so entered upon the payment to the local land officers of the usual and customary fees, and no other or further charge of any kind shall be required from such settler to entitle him to a patent for the land covered by his entry."

The act passed the Senate and was in the hands of the House Committee on Indian Affairs, by whom it was favored, before it was discovered, or its mischievous effects upon the college revenues realized. Your committee, assisted by others, was promptly on the ground, not once, but five or six times, and every effort was made to warn the colleges of the peril. But for the energetic action of their officers during the two days of debate upon the bill it must certainly have passed. It was finally rejected, but, the Senate refusing to recede, the following compromise was agreed upon: "That the settlers who purchased with the condition annexed of actual settlement on all ceded Indian reservations be, and they are hereby, granted an extension to July 1, 1900, in which to make payments as now provided by law." That is, instead of making the settlers a free gift of the land, the government has extended the time for payment. It is like the case of the creditor who refuses to cancel his debtor's note, but gives him easier terms as to installments. There is, however, this difference, that the government does not call for any installment. Do not deceive yourselves, gentlemen of the Association: sooner or later this question will again confront you, and it is the

part of wisdom to settle upon our future policy. While the bill was being debated in the House, Senator Morrill introduced a measure into the Senate providing that the college annuities should be paid from any unappropriated sums in the Treasury. This bill passed through two readings and was then lost sight of in the greater interests of the war. It is the unanimous opinion of your committee that either that bill or one of similar import should be passed.

In response to the many requests for information respecting the detail of officers to the colleges, a personal interview with the Adjutant-General of the Army was secured, and the order of the War Department forbidding the detail of any officer for any service until after the report of the peace commissioners was sent out in a circular letter to each presiding officer. While it would seem impossible at present to secure any details, would it not be for the best interests of this Association to place itself on record, either now or at such time as may seem suitable, respecting the value of these details to the colleges and the country at large? The law distinctly states that in the details to the several States preference is to be given to the colleges of agriculture and mechanic arts. It further states that officers must be detailed who are agreeable to the authorities of the different institutions. Both these provisions have been disregarded in two or three instances. It is recommended that, when action is taken, the whole subject of these details be carefully reviewed and that colleges receiving officers on their faculty be allowed a choice in this matter.

The order of the President during the late war, allowing a certain number of second lieutenants to be appointed from the colleges, did not entirely secure the result intended.

Consultation was not had with the college authorities. Selection was made from the ranking men in the military department; and when, as happened in three cases, the men were unable to accept, from physical disability or other cause, the colleges were passed by. The subject has seemed of sufficient importance to have a special paper presented to this convention on "Land-grant and other colleges and the national defense."

Special committees have been appointed to forward the interests of the coöperative station exhibit at Paris in 1900, the establishment of experiment stations of engineering, and the securing facilities for graduate work in the several departments at Washington. Reports will be made by their respective chairmen, and we will not occupy your time with what would be mere repetition.

In conclusion, we would state that the usual duties devolving upon the committee have been faithfully performed. The proceedings of the last convention have been edited and published, the various papers recommended by the committee appointed for that purpose, have been published, and the customary notices, programs, etc., have been issued.

In behalf of the executive committee,

HENRY H. GOODELL, *Chairman.*

REPORT OF THE EXECUTIVE COMMITTEE, FIFTEENTH CONVENTION, 1901

IMMEDIATELY following adjournment of the last convention, the new executive committee met and organized for the year, making choice of E. B. Voorhees for secretary and H. H. Goodell for chairman.

To the nine measures referred to it for consideration careful attention has been paid, and such action taken as the circumstances in each case seemed to warrant. First in importance was the bill for the establishment of schools or departments of mining and metallurgy in connection with the colleges for the benefit of agriculture and the mechanic arts. It will doubtless be remembered that during the last session of Congress (Fifty-sixth Congress, First Session) the Senate Committee on Mines and Mining reported a bill (S. 3982) entitled "A bill to apply a portion of the proceeds of the sale of the public lands to the endowment, support, and maintenance of schools or departments of mining and metallurgy in the several States and Territories, in connection with the colleges for the benefit of agriculture and the mechanic arts, established in accordance with the provisions of an act of Congress approved July 2, 1862."

The committee gave a very careful and detailed consideration to all the provisions of the bill, and unanimously reported it to the Senate with a favorable recommendation,

accompanying it with a report which fully set forth the merits of the measure and the great national importance of the interests it was intended to promote.

The Senate, in turn, subjected the bill to a searching and thorough discussion, adopted a few useful amendments, and passed it without a dissenting voice.

When the bill reached the House of Representatives it was referred to the Committee on Mines and Mining, was there fully considered and unanimously reported to the House with a favorable recommendation, as a substitute for one that had been previously reported from the same committee and was then on the House Calendar. The bill was reported by Mr. Mondell, of Wyoming, who had given particular attention to the subject and who accompanied it with a strong and convincing report.

Thus the measure stood when Congress adjourned, the pressure of other business preventing this from reaching a vote. The bill as it stood was in the nature of a compromise, and is believed to be just and acceptable to all interests. Several bills relating to the same subject-matter have been before each committee, and the form finally agreed upon seems to embody the best features of all. Your committee recommends that this bill or one of similar import be introduced at the earliest practicable moment of the next session of Congress.

Under the resolution that the executive committee take into consideration the matter of making the collective exhibit of the stations a permanent exhibit of the experiment stations at the national capital, and endeavor to make suitable arrangements for its permanent installation and care at Washington, a communication was sent to the honorable

Secretary of Agriculture, stating the wish of the Association, and asking whether such installation and care were feasible. The following reply was received: "The exhibit is now at Buffalo, and very likely will be used at Charleston next winter. The question of its permanent installation here will be carefully considered when we are through with its use at these expositions."

In the closing hours of the last convention a communication was received from the management of the Pan American Exposition, asking that a delegate be appointed to the dairy test to be held in Buffalo. The executive committee was directed to appoint a delegate. At a meeting held later, Director W. H. Jordan was so appointed.

Conformably to resolution offered by Dr. Dabney, a memorial was sent to the honorable Secretary of Agriculture indorsing his action in opening the Department of Agriculture to the graduates of the colleges established for the benefit of agriculture and the mechanic arts, and pledging the earnest support of the Association in carrying out that policy.

The executive committee was further directed to urge upon the honorable Secretary of Agriculture the desirability of publishing: —

(a) A second edition of the history and description of experiment stations as originally prepared for the Paris Exposition;

(b) A separate edition of the addresses of President Atherton and Director Jordan;

(c) The lectures of Dr. Bernard Dyer.

The second edition of the history of the experiment stations in this country has already been published and dis-

tributed. The lectures of Dr. Dyer have been approved and will shortly be issued, but in regard to the addresses of President Atherton and Director Jordan it was thought wiser to publish separates from the account of the proceedings of the convention than to ask for a separate edition.

The question of constituting all land-grant colleges designated depositories of government publications has continued through the past year to claim the attention of your committee. Taking advantage of the fact that a bill to amend the act regulating the public printing and distribution of public documents was then being considered, it succeeded in having an additional section incorporated, including all the colleges among the number of designated depositories. The bill, however, failed of being called up, and the section shared the fate of the bill, dying with the last Congress. It seems unwise to introduce this into Congress as a special bill, and it is recommended that the new executive committee keep in touch with the printing committee and see that a section providing for our interests is inserted in the amended bill.

The executive committee has considered the summer school of graduate instruction in agriculture, suggested by the Ohio State University, and the offer of the university to assume responsibility for the expense of the first session. The committee recommends that the convention approve the holding of a session during the summer of 1902, to be under the control of the president of the said university, with the expectation of adopting the school as a coöperative enterprise, under the control of the convention, should the success of the first session seem to justify the continuance

of the school. The following outline is submitted as a basis for the discussion of the convention: —

(1) A summer school of graduate instruction in agriculture shall be conducted under the auspices of the American Association of Agricultural Colleges and Experiment Stations, the sessions to be held at different institutions belonging to the Association, as the convention from time to time may direct.

(2) Each convention shall appoint a committee of control, to be composed of three members, one of whom shall be the president of the institution at which the next session is held, or some other representative selected by that institution.

(3) The committee of control shall have power to select the director and other officers of the school and to fix their duties and compensation.

(4) The convention shall provide, either by itself or in coöperation with the institution at which the session is to be held, for the expenses of the school, and for this purpose a special annual assessment, not to exceed ten dollars, may be laid upon the colleges and experiment stations belonging to the Association.

For the executive committee,

H. H. GOODELL, *Chairman*.

ADDRESS TO THE SENIOR CLASS, 1887

YOUNG GENTLEMEN OF THE SENIOR CLASS: — As the hour draws nigh when we must part, I feel that I cannot let you go without in some more personal manner wishing you God-speed, and that good fortune and success that waits on honest endeavor. Four times since first we met the year has renewed its beauty, and now the spring stands crowned in all its loveliness.

Wherever the eye may rest, on valley, wood, or mountain, everywhere is life — life in its prime of beauty. This week you enter upon your life-work, whose harvest will be what you make it. Can I do more wisely than to recall to mind the golden words the Hindoo uttered more than two thousand years ago: “Man follows the bent of his will; subdues, or is led by his passion; bows to the law of his conscience or willfully lives in rebellion. He says to himself, ‘I am free!’ He says true! He is free to grow noble; he is free, too, to work his undoing. But though he act as he will, he is but a tool in the great hand of destiny, used to perfect its fabric of life. Out of evil comes good, but not for the doer of evil; he has earned for himself sorrow that he did freely; he has worked for the good that he did blindly. Out of evil comes good, from sorrow shall follow a blessing.”

Yours will be a stirring age. The great questions now agitating humanity will confront you at every step, and you will have to decide for yourself their right or wrong. Consciously, or unconsciously, you will play your little part in the great drama of life, and work for the general harmony of the whole. Stand fast for the right; strike at the root of evil.

Be honest! Be true, and eschew the hollow shams and pretences by which you will be surrounded!

Fight well, and thou shalt see after these wars
Thy head wear sunbeams and thy head touch stars.

Use your talents on the side of morality and justice. Never prostitute them to a cause you disbelieve in. Remember that they are a special gift of God, and are not objects of barter and trade to be knocked down to the highest bidder. If you but have his seal upon them, you will wear the livery of the Deity. Wherever you may settle, remember that the community has a right to expect infinitely more of you than of the clever young mechanic, who may chance to live next door. It has a right to demand that you shall be a cultured gentleman. Genius and learning must go hand in hand with character. The man who can stand forth with uplifted brow in the conscious sense of a pure body and an unsoiled mind is a power which none can withstand. For the angels of light are on his side, and the powers of darkness cannot harm him.

And now, as we bid you farewell, we wish you success in every good and honorable undertaking. We pray that every blessing may attend you, and that the riches of that mercy we ask for ourselves may rest upon you. Perplexities and trials will come. The world will seem dark and the way dreary. There will be times when you will not know which way to turn. But rest assured that the darkness comes before the day, and if you but have faith the light will surely break. Be yours the prayer of the poor Breton fisherman as he puts to sea in his wretched skiff: "Oh, God, thy ocean is so large and my boat so small."

ADDRESS TO THE GRADUATING CLASS

1888

YOUNG GENTLEMEN OF THE GRADUATING CLASS: — It is not without emotion that I see you here to-day, for there comes vividly back to me the time when, a quarter of a century ago, I too stood, as you are now standing, on the threshold of the great world, looking out on its busy scenes and wondering where my place would be, and what the work I should be called upon to do. I cannot help rejoicing with you in all your glad hopes and aspirations, in your generous enthusiasms and warm-hearted confidence, for in the vigor of your young life everything now seems possible, and the difficult, easy. And yet there is a feeling of sadness blended with it all, for I know that the way will not be one all of ease, and many times you will be tempted in your despair to give up the contest and turn your back upon it.

What better wish, then, can I offer you than that you should fill your place in life, — fill it so completely that there can be no question about it, — fill it with your might, — fill it in all honesty of heart and sincerity of purpose. Let there be no half-way work about it. If it is worth the doing at all, it is worth the doing well, and the judgment of mankind will estimate you according to your doing. The world admits no shirks, and the half-in-earnest man receives but half recognition. Put your whole soul in your work, and as sure as day succeeds the night your reward will

come. The patriarch of old wrestled with the angel of the Lord through the entire night, and would not let him go even at the coming of the dawn, till he had received the wished-for blessing. He was terribly in earnest, and the shrunken sinew and the hollow of his thigh bore witness to the intensity of his purpose.

Be not cast down by the thought that yours is but a humble place and it makes no difference what you do. It does make a difference and the world cannot do without you. It is the filling of just such places that makes the perfect whole.

The healing of the world
Is in its nameless saints. Each separate star
Seems nothing, but a myriad scattered stars
Break up the night and make it beautiful.

To fill worthily your place you must look up. Walk with your face downwards considering the things of earth, and your purposes will be low and groveling. Accustom yourself to look upon labor as low, and naught can save it from being drudgery. Join brains with hands and you emancipate it. "Drudgery without intelligence is slavery. Labor with intelligence is freedom." High thoughts will lift you — low ones degrade you. Respect for things above will draw you upward to their level. An instructive fable tells us that men once walked upon all fours like beasts of the field, but they caught sight of the stars, and the heavenly attraction lifted them up to the human form and semblance of the divine. And so with you, — with eyes turned upward to the heavenly light you will lose the dross of earth and walk in that divine radiance which is a part of God.

And now, as we set upon you the seal of our approval, and send you forth to justify to the world our action, we bid you God-speed in all that is true and right; and as we grasp your right hand, we say from out the very depths of our hearts, not good-bye, but God be with you!

ADDRESS TO THE SENIOR CLASS, 1890

GENTLEMEN OF THE SENIOR CLASS: — The hour so impatiently looked forward to by you has come, and but a few brief moments more and you too will have crossed the dividing line that separates the present from the past, and have taken your place in the fighting ranks of life. Four times the spring has clothed these hills in all the beauty of its green. Four times the wintry storms have wrapped the mantle of the snow about them. From yonder rooms you have daily watched the glories of the sun descending behind the western hills, and daily, as your eyes have swept the outlines of the wondrous picture nature has spread out before you, you have gathered fresh inspiration and gone forth with renewed courage to perform the tasks assigned you. But now, too soon, the vivid surroundings of the present will be but a memory of the past, and the scenes amid which you have delighted to wander, will be the homes of others than yourselves. It will cost you a pang to root out these ideals of the present hour and make for yourselves new homes, new friends, new lives. Yet after all it is right and natural that it should be so. For separation is the common inheritance of man. No propagated life can be fully developed till it is separated from the parent stock.

All life that lives to thrive
Must sever from its birthplace and its rest;
Still must the sapling top
Ere sunk in earth its fibres fresh will root;

Must from the oak-tree drop
Ere forest monarchs from the seed can shoot.

Nay, even death itself, must lay its blasting hand upon all that is dearest and most precious, ere it can be transplanted to a more perfect life and growth. Time has wrought many changes in your midst. As I look down upon you, I miss familiar faces, faces of those who set out with you. Some have fallen out by the way, — others have entered upon new purposes and activities, — and one, alas! whose eager soul outstripped the fetters of his mortal frame, has laid down his young life at the very outset of his career and finished his work ere it was well begun. This is the hour for sober thought, for self-communion, for looking over your stock in trade and seeing what you have to offer to the world. Gone now are all the petty animosities of your college years, banished the little dissensions and jealousies of your younger days. The world is too large, too grand for you to harbor them longer. The cry of battle is ringing in your ears, and in the pressing duties of the present forgotten are the resentments of the past. "When," says the Apostle Paul, "when I was a child, I spake as a child, I understood as a child, I thought as a child, but when I became a man I put away childish things."

Young men, manhood with all its glorious possibilities lies open before you, and the question comes to you, not what can the world do for me, but what can I do for the world? What can I do to make it wiser and better? What can I give to my fellow men to help and bless them? And just in proportion as you answer that question aright, will be the measure of your success.

And now, as for the last time we meet, as students and

instructor, as for the last time I grasp your hands and wish you every success that follows earnest, right endeavor, then comes to my lips the blessing hallowed by the usage of three thousand years: —

The Lord bless thee, and keep thee ;

The Lord make his face shine upon thee, and be gracious unto thee ;

The Lord lift up his countenance upon thee, and give thee peace.

CAPTAIN WALTER MASON DICKINSON, U. S. A.¹

MY friends, we have met to-day to hold memorial services for one who was dear to us all. It is very fitting that such services of remembrance should be held here. For this was his home. These were the hills he loved. This was his college, and here he came back in his riper years to share the knowledge he had obtained with his younger brothers. And if the simple story of his life may lead any one not merely in word, but in deed, to follow the path he chose and take as his precious legacy all that was pure and noble and lofty in him, I shall feel that this hour will not have been spent in vain.

When I first knew him, he was a little curly-headed lad, who, standing at my knee and asking all manner of questions about the Civil War, used to declare that he was going to run away and become either a sailor, or a soldier in the cavalry. Prophetic utterance! The dream of the boy became the reality of the man, and what in his childish heart he had longed to be, found its fulfillment in the chosen profession of his life. It is interesting to note how unconsciously, all through his life, there was the same strong under-current of patriotic feeling, only occasionally coming to the surface. The crude composition of his sophomore year on "The greatness of the United States" and its abil-

¹ Address delivered at the Massachusetts Agricultural College, November 9, 1898, at the memorial exercises for Captain Dickinson.

ity to conquer any other nation, — his fondness for the study of American history, not merely at the academy, but I may add, to the very close of his life, — the hearty emphatic support of President Cleveland's attitude on the Venezuelan question, found its fitting culmination in the noble words pronounced in this very chapel at the memorial service for Governor Greenhalge. They will bear repeating, and I would that every young man listening to me to-day would take them to his heart and grave them there as with a pen of iron. Speaking of the higher duty, he says: —

“That duty is the one you owe to your country. By your country I do not mean this small space, crossed and recrossed by the beautiful and granite-capped hills which so closely encircle us, but I speak of a country, a part of whose wide domain is always in sunlight, extending westward from the storm-washed rocks of the New England shore to the farthest extremities of the Aleutian Isles — from the present frozen shores of the great lakes to the ever tropical climate of the Mexican gulf — a country with seventy millions of people — a country of free speech and free religion — a country covered with schools and churches — a country to be proud of; a country to respect; and above all, if need be, a country to die for. This is the spirit which should be taught in all our public schools, encouraged at the fireside and in the churches, that the aim of every boy and young man might be to make this our common country united — one for all, for in unison only is there strength. *Then the day will surely come when one could wish no other epitaph than this: ‘He lived and died an American citizen.’*”

He had learned well the lesson that the civic virtues,

the duty man owes to the State, tower above all else. Like Andrew Fletcher, he could exclaim: "I would readily lose my life to serve my country, but would not do a base thing to save it."

Entering the Massachusetts Agricultural College in September, 1873, he pursued the regular course for nearly three years, leaving in his junior year to accept an appointment to the Military Academy at West Point, offered him by President Julius H. Seelye, who was then in Congress. He entered on June 14, 1876. Of his life there and the impression made, let his classmates bear witness. Of the many letters received, I can only make use of a few, just enough to give you an inside view of the man in this formative period of life.

"I remember him as being a high-strung young fellow, conscientious and energetic in the performance of his duty, and just the kind of man whom you would expect to be at his post of duty in an emergency." — "Generous, honest and unselfish — inflexible in his adherence to truth, he made friends whenever he went." — "Dickinson had a lovely disposition which made him most congenial company. He always did his very best wherever he was put, and as a soldier always did his duty. He was beloved by his men and respected by his fellow officers." — "He learned easily, took good rank in his class, and was universally popular. Bright, genial, and a good soldier, he was a most welcome addition to any circle. Transferred from the cavalry to the Seventeenth Infantry, and serving up to the time of his glorious, but regretted death, at the front of his troops, where he voluntarily placed himself, despite the fact that his duties as a quartermaster appointed his place in the rear,

his soldierly instincts and sense of duty prevailed, with that sad result. A soldier, a gentleman and a scholar. God rest his soul!" — "My classmate Dickinson has always been the same sunny, light-hearted boy he appeared to be when we reported at West Point in 1876. The last long talk I had with him was at Tampa, discussing the projected campaign. He was eager for the active service and looked forward with high hopes to our immediate success with the efficient army then organizing. 'Dick,' as we were wont to call him among ourselves, was naturally a great favorite in his class and among his brother officers, and withal he was a most efficient officer. The loss on the day of July 1 was so heavy and immediate to us that at first I hardly appreciated that we had lost our classmate, but as time goes on, I find that I miss him the more, as my mind is capable of appreciating the fact that we can never hope to see again his cheery smile or hear his hearty laugh."

What higher commendation can a man seek than this? Conscientious in the discharge of duty — Doing his best in whatever position placed — Inflexible in his adherence to truth — A soldier, gentleman and scholar — these are no uncertain words of praise. They represent the noblest ideals and highest conceptions of duty.

Graduating from the Academy in June, 1880, he was assigned as Second Lieutenant to the Fourth U. S. Cavalry. At last his boyish dreams were realized and he was in truth a member of that gallant army in which he took so much pride. The next eleven years were busy ones for our young, untried officer. We catch glimpses of him now in the field against the Indians and now in garrison on some lone frontier post — now doing duty as quarter-

master and now on recruiting service. But wherever placed, the same record for efficiency and thoroughness follows him. He was complimented by General Ruger for a forced march, made alone with fifty Indian scouts, covering a distance of two hundred and fifty miles from San Carlos agency to Sipá, New Mexico, in three days, the Indians running by the side of his horse. And his captain writes: "He was unusually attentive to duty and thorough in all that he did. I always considered him a brave, true man, extremely sincere in his attachments and relations with others. He was a devoted husband, and just and generous in all his relations with his friends."

The following brief synopsis of his army life, furnished by a brother officer, gives continuity to the picture: —

"Upon graduation he was assigned to the Fourth U. S. Cavalry, joining his troop at Fort Sill, Indian Territory (the Kiowa and Comanche Reservation). From the Indian Territory the regiment was ordered to Colorado, keeping in check the Utes; then to New Mexico for garrison duty, which at that time meant continuous field service against the Apaches. After three years' service he was detailed to the Infantry and Cavalry School at Fort Leavenworth, Kansas. After graduation he was retained at the post until 1886, when with his troop he was again ordered to New Mexico.

"Receiving his promotion to a first lieutenancy, September 1, 1886, he was ordered to Fort Huachuca, Arizona, then to the Cavalry Depot, Jefferson Barracks, Missouri, and again to Arizona, remaining there until the regiment was ordered to the Pacific coast. In 1891 he transferred to the Seventeenth Infantry and was stationed

at Fort D. A. Russell, Wyoming. From this post he was detailed to Amherst, Massachusetts, as Professor of Military Science at the Massachusetts Agricultural College. After a tour of service at this college he rejoined his regiment at Columbus Barracks, Ohio, remaining on duty at that post until the late declaration of war, when he was ordered to active service in Cuba. At this time he was the regimental quartermaster, appointed April 1, 1898, receiving his promotion to a captaincy April 26, 1898, which was confirmed by the Senate, after his death, July 14, 1898.

“Captain Dickinson was stationed at a number of posts during his service, the following being a partial list: — Fort Sill, Indian Territory; Forts Cummings, Bayard and Stanton, New Mexico; Forts McDowell, Huachuca, and Bowie, Arizona; Fort Walla Walla, Washington; Presidio of San Francisco and Yosemite National Park, California; Fort D. A. Russell, Wyoming; Jefferson Barracks, Missouri, and Columbus Barracks, Ohio.”

One last picture of the dashing cavalryman we have, drawn by the hand of one who was in action with him, and we see him just where we should expect to see him, in the fore-front of the battle, leading a charge against the lurking Apaches: —

“We were in but one Indian fight together, at Horse-Shoe Cañon, on the Arizona-Mexican line, April 22, 1882. The Indians occupied a strong position on a high bluff, which we finally carried by assault. In the assault, Walter was the very first to reach the summit, and I well remember, as the line of his troop swept up the hill, he was the forward apex of a triangle, of which the two sides were formed of the men of his troop on his right and left rear.”

Transferred at his own request November 4, 1891, to the Seventeenth Regiment U. S. Infantry, he remained in this new branch of the service only a brief nine months, and was then detailed as military instructor to the Massachusetts Agricultural College. Why should I dwell upon his work here? Is it not known to you all? The pains he took in bringing up the battalion to the highest pitch of excellence, eliciting from the Army Inspector the comment, "The youngster has done well"; the interest he took in every man of his command; the solid conscientious work he put into his duty. Who of you that ever saw him walk across the parade ground as if he owned the very ground he trod upon, but recognized that he was a leader among men? Who that ever saw him handle the cadets, and watched the animation and the force with which he drilled them, but recognized the born soldier? Obedience, implicit obedience, he demanded. Unstinted praise he gave when merited; sharp, stinging rebuke when deserved. But with all this the boys liked him — nay, more, they loved him while they feared him. That same nameless charm of personality which led his brother officers to call him "Dickie," charmed them, and their admiration for the man blossomed into affection for the friend.

How completely he won their hearts this extract from a letter written by one of the graduates, speaks eloquently: "I am grateful for the opportunity to help in this memorial. The deep personal interest he took in each of us who came under his instruction and discipline, his complete devotion to duty, to the battalion, to the whole college; his sorrow at our shortcomings and his pride in our successes, made us regard him with more than ordinary feelings as our

friend. His last words to our class in our class-room were so characteristic of him that I will repeat them as nearly as my memory will allow: 'If you ever come where I am, come and see me — I'll try and make it pleasant for you. If you are ever in trouble, let me know — I'll try and help you. Good-bye.' — And he was gone from the recitation room to his office. Every man in that room knew he meant just what he said and that he meant it to apply to *him*. The college has lost a good champion and the country a noble officer."

The words of parting to the class that had been under his instruction for four years convey so clearly his own conception of duty that I know you will bear with me a moment longer while I repeat them: —

"Young gentlemen, the time has now come when we are to separate, and there are a few things that I take occasion to say to you, because I shall never have the opportunity again. I came here from twelve years' continuous army service on the Plains, beyond the Mississippi. You thought, perhaps, I was rather a rough fellow. My way of dealing with you at first seemed, probably, somewhat severe. I tried to teach you lessons of unquestioning obedience, for obedience is the first duty of a soldier; but I think you have learned to understand me, as I have learned to understand you, and our relations, on the whole, have been very pleasant. And now, as you leave the college to go out into the world, I wish to say two or three things which I trust you will not forget. The first is: Remember always to be a gentleman. Second: Be truthful; always truthful. No man can be a true soldier on any other basis. Third: Wherever you are placed, under whatever circumstances

and on every occasion, be true to yourselves. And last: Whatever you find to do in the world, give to it the best that is in you and do it for all you are worth."

Homely words, tersely expressed, but striking out straight from the shoulder to the mark. What Christopher North calls "A cut and thrust style, without any flourish. Scott's style when his blood was up and the first words came like a van-guard impatient for battle."

A man is judged not by the place he fills, but by the way in which he fills it. He was an unknown quantity so far as instructing was concerned, and when he found that he really could teach, he suddenly woke to a consciousness that life had a deeper meaning for him than he had ever realized before. It was most stimulating to hear his enthusiasm over his new work. He went at it in the same conscientious manner in which he performed every duty, but there was added to that a wondering delight in his new-found powers. He studied international law — he worked at constitutional history and called upon all the resources of his previous years of reading American history to prepare himself the better for the lecture room. In fact — "his work at the college was so well done that it seems as if he could sleep better in the soil of the town where he did one piece of thoroughly finished work and for which he is sure to be remembered."

Rejoining his regiment in 1896, he served with it for the next eighteen months at Columbus, Ohio. Then came the call to arms and with it his appointment as quartermaster, and the movement of the regiment to Tampa and thence to Cuban soil. When they reached Baiquiri, the regiment marched on and he was left to unload the stores

and baggage. Chafing under his forced inactivity and hearing that a battle was imminent, he left the ship and rejoined the regiment Monday, June 27, five miles from Santiago. Being ordered by the lieutenant-colonel to return and finish the unloading, he made his way back on the following day to the shore, completed his task, and once more — late on the night of June 29 — reached his command. On Thursday the army advanced, and that night the regiment bivouacked so near the enemy that fires were not allowed to be lit and the utmost quiet was enjoined that their position might not be betrayed.

It is not my purpose to go into details of the battle of El Caney. That has already been done by abler pens than mine. Suffice it to say that El Caney is a small village cresting a hill three and a half miles northeast of San Juan, three miles north of El Poso, and five or six miles northeast of Santiago. In the native language it signifies “the tomb,” because upon this hill were buried many of the ancient inhabitants—a fit name for the battle-field where so many of our bravest found their last resting-place. On that fatal morning no one was calmer or more cheerful than Lieutenant Dickinson. No fear nor disturbing thought seemed to enter his mind, and he made his few preparations for the advance as quietly and with the same care as if going on parade. His duties as quartermaster did not require his presence at the front, but he could not bear to remain at the rear and not share the dangers of his comrades. Going to Lieutenant-Colonel Haskell he said: “Colonel, I want to go with you to-day”; and from that time, with the exception of two short intervals, during which he was carrying orders, never left his side until he received his death wound.

The brigade was in motion shortly before daybreak, painfully making its way over the narrow, slippery paths and climbing the grassy ridge overlooking the village. The Twelfth and the Seventh regiments first deployed and took position. Then came the order for the Seventeenth to place itself on the right of the Seventh. Cautiously advancing in single file, it struck the sunken road running parallel to the northeast slopes of El Caney. It was commanded by block-houses at either end, and in front was an open country swept by the Spanish marksmen. The hedge along the road was strongly interlaced with barbed wire. The Colonel directed this to be cut, and through the opening passed out into the field beyond, attended only by Dickinson. In an instant this drew upon them the fire from a hundred unseen guns. What followed is best described in the words of the Colonel, taken from a private letter written a short time before his death: —

“Captain Dickinson’s death wound was received at the same moment I was shot through the left breast. He then received a bullet through his right arm at the same instant I was shot through the knee. This shot knocked me down, and seeing me fall, he ran toward the men and told them to ‘Go and bring in the Colonel.’ In other words, he did not leave my side till he had been wounded twice.”

It is only right to say that all other accounts report Captain Dickinson as being shot first in the arm; and seeing the Colonel fall, he went back for help, and on his return received his fatal wound. The weight of evidence would seem to indicate that this is the correct version. Placed in a litter and receiving such aid as was possible on the field, he remained all day exposed to the bullets of the sharp-

shooters, being wounded a third time in the fleshy part of the leg, and a little later grazed in the arm and ear. Who can tell the agony of that long day in the burning heat of a tropic sun! But his courage never faltered and he greeted each comrade with a wan smile and pressure of the hand.

Heroes are forged on anvils hot with pain
And splendid courage comes but with the test.

It is a beautiful incident that, as he lay there, at intervals amid the crash and uproar of the battle there came to his ears the familiar sounds of his childhood. In the village but a few hundred yards distant the cackling of hens and the crowing of cocks could be distinctly heard. The Bob Whites were calling to their mates, and the *hoodios*, a species of daw, flying from tree to tree, were calling in strange, but pleasant notes.

Removed to the field hospital, he seemed troubled at the presence of so many wounded men, and at his own request was placed in a small shelter tent under a mango tree. And here, watched over by his faithful sergeant, George Kaltschmidt, he lingered on through that soft moonlit night till the end came.

An hour before the dawn the forest birds stir uneasily in their sleep. They are dreaming of the day. An hour before the dawn, his trembling spirit, struggling from its mortal frame, flew upward and found rest. The dawn of that great day which comes to all alike, had come to him, and on his wondering eyes there broke the glories of a never-ending life.

My friends, "there is no heroic poem in the world but is at bottom a biography, the life of a man; and also it may

be said, there is no life of a man faithfully recorded, but is a heroic poem of its sort." Walter Dickinson was a man like unto ourselves—a man of like weaknesses and passions, but his biography is written in our hearts, and in our hearts rings on forever the poem of his strong young life.

Chaplain Trumbull in one of his "War Memories" has a chapter devoted to "the soldier heart buttoned over by the soldier coat," and tells the following incident: Being called upon one day to conduct burial services over two men who had died in the hospital, he was greatly shocked as he entered the hall where the bodies were lying, at the apparently unfeeling manner of their comrades, who were jesting and laughing as though nothing unusual had occurred. But in the midst of their chattering, one suddenly turned to the other and said: "Jem, have you cut a lock of Bill's hair? I reckon his mother would like it. My mother would." It was a revelation to him, for underneath the rough exterior he recognized the soldier heart beneath the coat, beating true to the mother-love of his boyhood's days. Somebody's mother wanted a lock of her boy's hair, and he remembered it because he too had a mother.

Soldiers do not like to display any emotion. Their rigid discipline has taught them to be calm and self-contained, and they carefully repress any signs of outward feeling. It is not shame. Only a desire to conceal from the world the aching heart. Walter Dickinson was no exception to this rule. The deeper feelings of his nature seldom, if ever, came to the surface. On the very eve of leaving for Cuba, with all the uncertainties of an active campaign staring him in the face, he could not bring himself to speak of it, and

it was only in the last letter before sailing from Tampa, that the mask was thrown aside and he penned a brief farewell to his brothers and sisters, commending to their tender love his wife. Not more than a dozen lines, but all the same it was the human cry of "the soldier heart buttoned over by the soldier coat."

We have said that he was brave. When on that fatal morning he said, "Colonel, I want to go with you to-day," it was with full knowledge of the risks he ran. He had been in battle before. He had heard the spiteful hiss of bullets and had seen men struck down around him. But his keen sense of duty would not allow him to remain behind in safety when he might be of service as one of the Colonel's staff. There is a moral bravery which far transcends that of the battlefield. The one is of the earth, earthy. The other is of the spirit, heavenly. He possessed both. Whatever interfered with his usefulness must be overcome, and when once he had made up his mind, no power on earth could move him. In temptation oft, beset by enticing snares, his courage stood the test. The Good Book says: "He that ruleth his spirit is better than he that taketh a city." Verily he showed in this a moral force and rugged strength that clothes his life with nobility and beauty. The hero living for a principle. The hero dying for his country. Each in itself beautiful — each the necessary complement of the other — together rounding out the perfect life of the man. Alas, that such men must die! Alas, that they are snatched from us too soon!

Not like some drooping flower, that no man noticeth,
But like the great branch of some stately tree
Rent in a tempest, and flung down to death,

Thick with green foliage — so that piteously
Each passer-by that ruin shuddereth,
And saith “The gap this branch hath left is wide ;
The loss thereof can never be supplied.”

One sentence among the tributes to his memory has deeply stirred me. It runs thus: “Please accept my thanks as an army officer for your interest in and desire to pay tribute to the memory of a fellow officer who sacrificed his life in his country’s service. It is the knowledge that friends at home do not forget, that encourages the soldier in the field and gives to him the feeling that he is truly a champion of the people and not a hireling. It is *sentiment* that wins our battles, not brute courage or love of carnage.”

That gallant army to which Walter Dickinson belonged and of which he was so justly proud is an army of trained and educated patriots. If “This war has taught us the morality of education,” and “if the schools have fought it,” none the less has it been fought and brought to a close by that little band, the regulars, — scholars, patriots and soldiers. The thinking bayonet, the scholarly sword, have gone hand in hand with the most marvelous exhibitions of courage and undying patriotism. An army of heroes — bearing the summer’s heat and wintry cold without a murmur — enduring all things — suffering all things — with too often the certainty that politics and influence would play their part in preferment, rather than merit. Yet never for an instant swerving from the path of duty, though that duty led them unto death: officers leading their men and men vying with their officers: performing such prodigies of bravery that the foreign attaché in breathless surprise exclaimed: “This is not war, but it is magnificent.” This is

the army we love and admire. This is the army we cherish in our hearts. Its list "is like the tower of David, builded for an armory, whereon there hang a thousand bucklers, all shields of mighty men."

Out of the mass of letters received, two have seemed to me especially fitting with which to close this brief, imperfect sketch of his life and work.

The General commanding the Division, Major-General H. W. Lawton, writes: "I knew Lieutenant Dickinson well for some years, and I knew him to be a patriot and a true soldier. And though there is no one who laments his untimely death more than I, still we have the happiness of knowing that he died like a nobleman and a soldier."

Lieutenant-Colonel J. T. Haskell, commanding the Seventeenth U. S. Infantry, whose judgment is entitled to the highest consideration, sums up his traits of character in these words: "He was an honest, upright, honorable gentleman without fear or reproach; he had all the qualifications of an excellent officer; well-educated, refined in his manners, prompt and energetic in the discharge of his duties, and very conscientious; his time was well spent with some good object in view; a great reader, very domestic in his habits; his own handiwork added much to the comfort and beauty of his army home which was always a delightful place for the guest. Unselfish, he was always pleased to contribute to the enjoyment of others.

"He was beloved by the officers and enlisted men of his regiment, especially for his business ways and just treatment of all. An active man, he loved field-duty, and his bravery in the field was one of his most noticeable qualifications. I loved him as a brother, and his loss to me will al-

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